

ESSENTIAL CIVIL SUPPORT TASKS

A thesis presented to the Faculty of the U.S. Army
Command and General Staff College in partial
fulfillment of the requirements for the
degree

MASTER OF MILITARY ART AND SCIENCE
Homeland Security

by

CHARLES D. MILLINER, MAJOR, US ARMY
B.S., United States Military Academy, West Point, New York, 1998

Fort Leavenworth, Kansas
2010-02

Approved for public release; distribution is unlimited.

REPORT DOCUMENTATION PAGE				Form Approved OMB No. 0704-0188	
Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing this collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0704-0188), 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ADDRESS.					
1. REPORT DATE (DD-MM-YYYY) 10-12-2010		2. REPORT TYPE Master's Thesis		3. DATES COVERED (From - To) FEB 2010 – DEC 2010	
4. TITLE AND SUBTITLE Essential Civil Support Tasks				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S) Major Charles D. Milliner				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) U.S. Army Command and General Staff College ATTN: ATZL-SWD-GD Fort Leavenworth, KS 66027-2301				8. PERFORMING ORG REPORT NUMBER	
9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION / AVAILABILITY STATEMENT Approved for Public Release; Distribution is Unlimited					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT <p>This study identifies essential civil support tasks to aid tactical units, specifically Brigade Combat Teams and Combined Arms Battalions, with Civil Support Operations. Civil Support Operations, an element of full spectrum operations, has four primary tasks: provide support for domestic disasters; provide support for domestic chemical, biological, radiological, nuclear, and high yield explosive incidents; provide support for domestic law enforcement agencies; and provide other designated support.</p> <p>With 9/11 and Hurricane Katrina's impact; the high probability of future disasters; and the Army's mandate to save lives, alleviate suffering, and protect property; tactical units must prepare to execute civil support operations with the same vigor as offensive, defensive, and stability operations. Doctrine does not address civil support operations below the operational level of war in a comprehensive manner.</p> <p>This study describes emergency response principles, studies the Army's past tactical civil support operations, conducts a theoretical application, and recommends essential civil support tasks for tactical units. The essential civil support tasks will assist tactical units in preparing for and executing civil support operations.</p>					
15. SUBJECT TERMS Essential Civil Support Tasks, Defense Support to Civil Authorities, Civil Support Operations, Disaster Response, Army Disaster Support, CBRNE Incident Support					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT (U)	b. ABSTRACT (U)	c. THIS PAGE (U)			19b. PHONE NUMBER (include area code)
			(U)	79	

Standard Form 298 (Rev. 8-98)
Prescribed by ANSI Std. Z39.18

MASTER OF MILITARY ART AND SCIENCE

THESIS APPROVAL PAGE

Name of Candidate: Charles D. Milliner

Thesis Title: Essential Civil Support Tasks

Approved by:

_____, Thesis Committee Chair
Charles E. Heller, Ph. D

_____, Member
Larry W. Noell, M.A.

_____, Member
Bruce J. Reider, M.S.

Accepted this 10th day of December 2010 by:

_____, Director, Graduate Degree Programs
Robert F. Baumann, Ph.D.

The opinions and conclusions expressed herein are those of the student author and do not necessarily represent the views of the U.S. Army Command and General Staff College or any other governmental agency. (References to this study should include the foregoing statement.)

ABSTRACT

ESSENTIAL CIVIL SUPPORT TASKS, by MAJ Charles D. Milliner, 79 pages.

This study identifies essential civil support tasks to aid tactical units, specifically Brigade Combat Teams and Combined Arms Battalions, with Civil Support Operations. Civil Support Operations, an element of full spectrum operations, has four primary tasks: provide support for domestic disasters; provide support for domestic chemical, biological, radiological, nuclear, and high yield explosive incidents; provide support for domestic law enforcement agencies; and provide other designated support.

With 9/11 and Hurricane Katrina's impact; the high probability of future disasters; and the Army's mandate to save lives, alleviate suffering, and protect property; tactical units must prepare to execute civil support operations with the same vigor as offensive, defensive, and stability operations. Doctrine does not address civil support operations below the operational level of war in a comprehensive manner.

This study describes emergency response principles, studies the Army's past tactical civil support operations, conducts a theoretical application, and recommends essential civil support tasks for tactical units. The essential civil support tasks will assist tactical units in preparing for and executing civil support operations.

ACKNOWLEDGMENTS

Learning to write a thesis was absolutely my greatest academic challenge. If I had not received positive encouragement throughout the process, I seriously doubt my ability to complete the task. My goal was to make a positive contribution to our future Army and continue service to my country.

I want to thank my wife, Cherrie, and my family. I sacrificed valuable family time staring at a computer screen throughout the year. Luckily, I had her continuous support and my family's constant encouragement. My accomplishment is truly their success.

Second, I would like to express my gratitude to my committee members, Dr. Charles Heller, Mr. Larry Noell, and Mr. Bruce Reider. Their personal sacrifice and willingness to educate actually produced a thesis.

Finally, I would like to thank my fraternity brothers and CGSC friends who provided me inspiration to continue the process. I look forward to serving with them as we face tomorrow's challenges.

TABLE OF CONTENTS

	Page
MASTER OF MILITARY ART AND SCIENCE THESIS APPROVAL PAGE	iii
ABSTRACT.....	iv
ACKNOWLEDGMENTS	v
TABLE OF CONTENTS.....	vi
ACRONYMS.....	vii
CHAPTER 1 INTRODUCTION	1
CHAPTER 2 LITERATURE REVIEW	14
CHAPTER 3 RESEARCH METHODOLOGY	26
CHAPTER 4 ANALYSIS	30
The Disaster Threat.....	30
Emergency Response Principles.....	38
Lessons Learned	44
Theoretical Application	51
CHAPTER 5 CONCLUSIONS AND RECOMMENDATIONS	59
APPENDIX A EMERGENCY RESPONSE PRINCIPLES	62
APPENDIX B ESSENTIAL CIVIL SUPPORT TASKS	63
APPENDIX C WATER, SANITATION, HYGIENE, AND SHELTER CONSIDERATIONS	65
BIBLIOGRAPHY.....	66
INITIAL DISTRIBUTION LIST	72

ACRONYMS

9/11	11 September 2001
AAR	After Action Report
BCT	Brigade Combat Team
CBRNE	Chemical Biological Radiological Nuclear High Yield Explosives
CCMRF	CBRNE Consequence Management Response Force (US Army)
CEM	Comprehensive Emergency Management
CJCS	Chairman of the Joint Chiefs of Staff
DCO	Defense Coordinating Officer
DHS	Department of Homeland Security
DOD	Department of Defense
DSCA	Defense Support of Civil Authorities
FEMA	Federal Emergency Management Agency
FM	Field Manual
JTF	Joint Task Force
NRF	National Response Framework
NORTHCOM	US Northern Command
SECDEF	Secretary of Defense
USACE	US Army Corps of Engineers
WMD	Weapons of Mass Destruction

CHAPTER 1

INTRODUCTION

The disaster response capabilities established among the US Army and other US federal agencies will ultimately define America's ability to prevent and respond to disasters. The Army has a long history of providing domestic support to citizens during times of need dating back to the Civil War Reconstruction period.¹ With today's threats to American security, citizens still look to the Army, with its numerous global commitments, to provide domestic support. The Brigade Combat Team (BCT), as the Army's base unit, must prepare for and respond to disaster threats as well as defend the nation. The Army does not provide essential tasks to tactical units preparing for or executing civil support operations, a critical element of the Army's full spectrum operations concept. This study explores the essential civil support tasks required to support civil authorities during disasters.

On 11 September 2001 (9/11), terrorists attacked the United States creating a disastrous event. Nearly 3,000 people lost their lives when Al-Qaeda members destroyed the World Trade Center towers in New York City and attacked the Pentagon in Washington, DC. Ironically, the Department of Defense (DOD) failed to defend the US and its own headquarters against an attack. The attack marked the first successful employment of a weapon of mass (WMD) destruction against the United States. The 9/11 attack created considerable uncertainty regarding the government's ability to secure the US domestically. Following this attack, citizens demanded government action to protect them against terrorist threats including terrorists' ability to utilize weapons of mass destruction.

In 2002, the government responded to the 9/11 attack with a series of investigations, organizational changes, and military actions designed to prevent future disasters. The 9/11 Commission, created with Congress' passage of Public Law 107-306, investigated facts and circumstances relating to the attacks.² DOD established US Northern Command (NORTHCOM), a combatant command whose primary mission is to defend the US.³ Congress created the Department of Homeland Security (DHS) with its passage of Public Law 107-296, the *Homeland Security Act of 2002*.⁴ DHS goals are to prevent terrorist attack, protect the homeland, respond to disasters, and strengthen its homeland security foundation.⁵ Homeland Security Presidential Directive-5 established the National Response Plan, a comprehensive approach to prevent, prepare, respond, and recover from disasters.⁶ The sudden, catastrophic nature of 9/11 forced the government to reorganize itself and produce more effective homeland defense policies to combat terrorism. Following 9/11, the government made revolutionary developments in its ability to prevent disasters; these developments simultaneously aided in solidifying national defense.

The initial impact of Hurricane Katrina tested the mettle of the newly created DHS and the ongoing National Response Plan.⁷ Hurricane Katrina, a Category 3 storm, devastated New Orleans killing 1,330 people and created extensive damage for Louisiana, Mississippi, and Alabama amounting to nearly \$96 billion.⁸ The storm measured 460 miles wide with 127 mph winds; it created surges along the region's coastlines ranging from ten to twenty-eight feet high.⁹ Katrina's massive size distinguished it from most hurricanes. The media displayed numerous images after several levees failed, exposing government's failure to protect Gulf Coast citizens during

the crisis. The Hurricane Katrina response effort required support from over 72,000 military personnel alone.¹⁰ In contrast to 9/11 where the government received most of its criticism for failing to prevent a disaster, the government received most its Hurricane Katrina criticism for failing to respond appropriately.

Katrina caused the public to doubt the government's ability to provide federal assistance during and following a devastating event. The government launched a series of investigations into its Hurricane Katrina response failures. As a result, Congress legislated several changes including the *Post-Katrina Emergency Management Reform Act of 2006* to address response shortfalls. The Post-Katrina Act primarily redefined DHS and the Federal Emergency Management Agency's (FEMA) role. The act also modified the President's emergency management authorities.¹¹ In *A Failure of Initiative*, the final report of a House of Representatives investigative committee, Representatives gave the DOD credit for its far-reaching capabilities and actions during its response to Katrina. However, the committee members also recognized DOD's deficiencies failed to prevent some human suffering.¹² Although temporarily diverted from its terrorism prevention focus, the government identified additional areas of concern related to disaster response, enacting policy reforms similar to its 9/11 example.

Hurricane Katrina and 9/11 exposed significant government shortcomings in protecting Americans from disasters. The tremendous loss of life and destruction associated with both events added new significance to Public Law 100-707, *The Robert T. Stafford Disaster Relief and Emergency Assistance Act*. The act, signed into law in 1988, amended presidential authority, provided guidelines to declare federal emergencies, and accelerated the federal assistance request process. With streamlined federal

procedures, DOD's disaster response times potentially decreased also. Since many Americans associate disaster prevention and response with national defense, DOD has a responsibility to rectify its shortcomings in these areas. The 9/11 Commission, in its final report published in 2004, stated, "[o]ur national defense at home is the responsibility, first, of the Department of Defense."¹³

DOD relies heavily on NORTHCOM's ability to support civil authorities in a disaster response. DOD created NORTHCOM to stabilize domestic security operations. National security no longer focused solely on winning wars abroad. NORTHCOM is the military organization with geographic responsibility for national defense within the United States. General Victor Renuart, Jr., former NORTHCOM commander, described its mission when he said, "[w]hen directed by the President or the Secretary of Defense, USNORTHCOM will support Federal primary agencies in responding quickly to natural disasters, catastrophic incidents, and the effects of terrorist attacks."¹⁴ The command achieves its mission through the National Response Framework (NRF).

In accordance with the NRF, a requesting federal agency can receive DOD support with Secretary of Defense (SECDEF) approval. DOD, through NORTHCOM, assigns a Defense Coordinating Officer (DCO). The DCO, as the DOD representative, liaisons with the designated lead federal agency. NORTHCOM may also assign a joint task force (JTF) subordinate to the lead agency. One of several federal agencies, if designated, may act as the lead agency including DHS and DOD. DHS is responsible for facilitating the federal disaster response process across federal agencies including DOD's role.¹⁵

The US Army, NORTHCOM's landpower component, undoubtedly executes a vital role within the NRF by providing land forces. The Army, in the last decade, transformed itself to deploy using brigades as the base tactical unit. BCTs typically report to the DCO or JTF Commander for their civil support missions.¹⁶ Field Manual (FM) 3-90.6, *The Brigade Combat Team*, states, "BCT forces provide essential services, assets, or specialized resources to help civil authorities deal with situations beyond their capabilities."¹⁷ The BCT is a modular formation organized to use organic resources to achieve any civil support mission provided by the DCO.

The BCT is also a key component of the CBRNE (Chemical Biological Radiological Nuclear and High Yield Explosives) Consequence Management Response Force (CCMRF pronounced "sea-smurf"). The CCMRF is a standing military organization within NORTHCOM. In 2008, the Army began domestic tours of duty for the CCMRF.¹⁸ Joint Publication (JP) 3-41, *CBRNE Consequence Management (CM)*, defines CBRNE consequence management as "those actions taken to maintain or restore essential services and manage and mitigate problems resulting from disasters and catastrophes, including natural, manmade, or terrorist incidents."¹⁹ A relatively new DOD concept, the CCMRF continues to evolve as the Army continues to determine relevant civil support tactical tasks.

To investigate what capabilities a BCT needs to support civil authorities during disasters, one must consider the threat to the United States. Disasters typically exceed local and state resources; they may initially exceed federal capabilities as well. As the scale of a disaster increases, the resources required to respond to the disaster may increase exponentially as in the Hurricane Katrina response.²⁰ The Stafford Act states,

[a] major disaster is defined as any hurricane, tornado, storm, flood, volcanic eruption, drought, fire, explosion or other catastrophe in any part of the United States which in the determination of the President causes damage of sufficient severity and magnitude to warrant major disaster assistance above and beyond emergency services by the Federal Government.²¹

The Stafford Act defines disasters for federal, state, and local authorities. A slightly different perspective leads to the disaster threat's broad characteristics. "Man lives on a perilous earth. The dangers that beset him take many forms, some natural, some man-made. They range from the periodic to the persistent, from the microscopic to the cosmic."²²

Whenever federal agencies such as DOD address disaster prevention and response, they must begin with what defines a disaster. The broad range of potential disaster scenarios complicates BCT response efforts; however, the expectations for BCTs conducting civil support operations remain, especially when local and state resources are completely exhausted.

Throughout history, people proved capable of causing accidental or intentional disasters. Prior to the second World Trade Center terrorist attack (9/11), manmade disasters occurred across the globe and within the United States. The 1986 Chernobyl Disaster and the 1984 Bhopal Gas Tragedy are examples of manmade disasters where thousands of people died due to industrial accidents. Within the last 30 years, terrorists bombed US Embassies in Lebanon, Kenya, and Tanzania, killing hundreds of people. In 1996, Terrorists bombed the Khobar Towers located in Saudi Arabia. Timothy McVeigh killed hundreds of people in the 1995 Oklahoma City Bombing. In 1997 alone, The Federal Bureau of Investigation reported 2,217 bomb related incidents.²³ The potential for manmade disaster occurrences continue to rise.

Obviously, manmade disasters are not the sole description for global disasters; natural disasters occur more frequently, causing death and destruction as well. Earthquakes, floods, and cyclones have periodically produced instantaneous, massive losses of life for ages. Thousands died in the 1975 China Floods. Recently within the United States, the 1989 San Francisco Earthquake and the 2005 Hurricane Katrina created extensive damage and took the lives of thousands of Americans. Compared to manmade disasters, natural disasters present an equally ominous threat to the US.

Disasters are not recently discovered phenomena. The occasional loss of life and destruction associated with disasters are not new either. Yet, Americans remained somewhat removed from the possibilities of a disaster requiring massive DOD support until 9/11 and Hurricane Katrina. Surprisingly, most incidents remain well within the scope of local and state authorities. As examples, local authorities handle water main breaks and hazardous material accidents daily in the US. The initial response task belongs to local and state governments. Remember, the National Guard is a state asset unless the President federalizes it. Prior to 9/11, the US government delineated requirements for federal assistance when disaster events overwhelmed local response efforts.²⁴ Most disasters remain within the scope of a federal response as well. However, recent disasters have completely overwhelmed government capabilities, requiring the nation to question its security.

Perceptions changed after 9/11 and Katrina occurred; Americans expected their government to guarantee their protection during extreme crises. The government modernized its disaster preparedness and response capabilities in a slow, incremental manner until these disasters occurred. The disasters forced immediate action to address

the immediate need. The country quickly recognized disaster response is intertwined with national defense. Citizens rejected government's nonchalance regarding disaster response.

FEMA coordinated federal disaster response prior to 9/11. Then, the DOD provided specialized capabilities, as needed, with the bulk of labor provided by the National Guard. As government began to understand national defense played a more critical role in domestic disaster response, the government began to incorporate stronger domestic defense policies.

These policies reflected a new focus on domestic threats in addition to existing global threats. FEMA's role changed significantly in the last decade because of its inefficiencies and resulting criticisms. FEMA, by design, was not able to provide for the nation's defense. In accordance with the new national mindset, FEMA lost its domestic security coordination role. Terms like WMD began to enter the American lexicon. The President and Congress created the DHS to address security shortfalls; however, DOD remained a key component of domestic security.²⁵

The Department of Defense, with its active duty and reserve forces, and the potential of federalizing National Guard units, has the largest and most diversified personnel assets in the Federal Government. As was demonstrated in the months after the September 2001 terrorist attacks, they can be used in a variety of security and emergency response roles. In particular, the Department of Defense remains the greatest federal repository of resources for responding to a chemical, biological, radiological, or nuclear (CBRN) incident.²⁶

NORTHCOM's civil support capabilities will influence America's ability to respond and recover from disasters. The Army, NORTHCOM's landpower component, must better prepare to conduct civil support activities; and, more importantly, provide improved domestic support capabilities within a brigade to respond to disasters. How can

BCTs better support civil authorities' efforts to reduce disaster impacts? An understanding of the Army's doctrinal framework is required when exploring this topic. Adding essential tasks to the BCT's plan to conduct civil support operations is necessary to improve performance during actual crises. What is the appropriate framework to judge BCT civil support training? Will the deficiencies identified in training improve the Army's response? These type questions will aid BCTs conducting civil support operations.

This research work will also aid BCTs by identifying emergency response principles. Next, this work will explore past BCT disaster responses to determine essential civil support tasks. Finally, as this work progresses, it will continuously refine the essential tasks. Overall, this work will identify best practices that reduce disaster impacts.

Although important to the concept of homeland security and Defense Support to Civil Authorities (DSCA), this study will not explore the roles of other federal agencies in disaster response. Nor will the study explore the Army's disaster response capabilities outside of the continental US or US territories. By isolating this study to key emergency response principles, a practical application will allow BCTs to better prepare for civil support missions.

This study requires several definitions, constraints, and assumptions to limit its scope of research. The study uses the term disaster as defined by the Stafford Act. These events require a BCT response within a coordinated local, state, and federal response. A significant event requiring a BCT or multiple BCTs is much more appropriate for discussion in this study compared to local or state emergencies not requiring federal

assistance. This study will not analyze DOD's global warfighting abilities preventing WMD attacks. A domestic event resulting from a conventional or irregular attack falls within the definition of a disaster; this study will not avoid the nature of warfare.

Within this study, no distinction exists among Army active duty, army reserve, or National Guard units. The National Guard, at the state level, bears similar, if not greater, civic responsibility compared to what the active component bears at the national level. Again, the goal is to identify essential civil support tasks that any army component BCT may use for its preparation. Currently, there are 73 active and National Guard component BCTs.²⁷ Heavy, Infantry, and Stryker BCTs are composed of six functionally unique battalions organized for combat. The term BCT represents BCTs, Combined Arms Battalions, functional brigades, functional battalions, and their major subordinate units; these organizations represent tactical units in this study. The BCT's unique capabilities will play a vital role during civil support operations; however, this study will limit the BCT's functional abilities to manpower and basic soldier skills. The term NORTHCOM also represents the United States Pacific Command which also has a role in homeland defense and homeland security.

The Army can no longer afford to remain lethargic in its disaster response. The potential relief capabilities of a BCT to American citizens are too great to allow preparation failures. The BCT has potential to display more initiative in disaster response. With the recent Haitian earthquake and the constant threat of another terrorist event, the Army must continue to build upon government reforms made after 9/11. This case study is an additional attempt to aid the Army in identifying essential civil support tasks. More

significantly, this study seeks to alleviate human suffering associated with disasters beyond local or state emergency response capabilities.

¹James A. Wombwell, *Army Support During the Hurricane Katrina Disaster* (Fort Leavenworth, KS: Combat Studies Institute Press, 2009), 9.

²National Commission on Terrorist Attacks upon the United States, *The 9/11 Commission Report: Final Report of the National Commission on Terrorist Attacks upon the United States* (New York: W. W. Norton and Company, 2004), xv.

³Northern Command, *US Northern Command: Protecting and Defending America 2002-2008* (Peterson Air Force Base, CO: Government Printing Office, 2008), 1.

⁴Elizabeth C. Borja, *Brief Documentary History of the Department of Homeland Security: 2001-2008* (Washington, DC: Department of Homeland Security History Office, 2008), 7.

⁵Department of Homeland Security, *Federal Preparedness Report* (Washington, DC: Government Printing Office, 2009), 14.

⁶Department of Homeland Security, *Quick Reference Guide for the National Response Plan* (Washington, DC: Government Printing Office, 2006), 1.

⁷The US government changed the title of the *National Response Plan* to the *National Response Framework* in March 2008.

⁸Lynn E. Davis et al., *Hurricane Katrina: Lessons for Army Planning and Operations* (Santa Monica, CA: Rand Corporation, 2007), 2.

⁹Wombwell, 2.

¹⁰Senate Committee on Homeland Security and Government Affairs, *Hurricane Katrina: A Nation Still Unprepared*, 109th Cong., 2d sess., 2006, S. Rep. 109-322. Senator John Warner noted in his additional views that 20 ships, 346 helicopters, 68 fixed-wing aircraft, and 72, 614 active duty troops, reservists, and National Guardsmen assisted in the recovery effort.

¹¹Keith Bea et al., *Federal Emergency Management Policy Changes after Hurricane Katrina: A Summary of Statutory Provisions* (Washington, DC: Congressional Research Service, 2006), Summary.

¹²House Select Bipartisan Committee to Investigate the Preparation for and the Response to Hurricane Katrina, *A Failure of Initiative*, 109th Cong., 2d sess., 2006, H. Rpt. 000-000, 201-240.

¹³National Commission on Terrorist Attacks upon the United States, 427.

¹⁴House Armed Services Committee, Commander, United States Northern Command, before the Subcommittee on Terrorism and Unconventional Threats and Capabilities 110th Cong., 2d sess., 5 March 2008.

¹⁵Department of Homeland Security, *Quick Reference Guide*, 4.

¹⁶Department of the Army, Field Manual 3-90.6, *The Brigade Combat Team* (Washington, DC: Government Printing Office, 2006), 10-28.

¹⁷*Ibid.*, 10-27.

¹⁸Gina Cavallaro, “Brigade Homeland Tours Start Oct. 1,” *Army Times*, http://www.armytimes.com/news/2008/09/army_homeland_090708w/ (accessed 6 June 2010).

¹⁹Joint Forces Command, Joint Warfighting Center, Joint Publication 3-41, *Chemical, Biological, Radiological, Nuclear, and High-Yield Explosives Consequence Management* (Suffolk, VA: Government Printing Office, 2006), I-2.

²⁰Senate Committee on Homeland Security and Government Affairs, *Hurricane Katrina: A Nation Still Unprepared*, 109th Cong., 2d sess., 2006, S. Rep. 109-322. Senator John Warner noted in his additional views that 20 ships, 346 helicopters, 68 fixed-wing aircraft, and 72, 614 active duty troops, reservists, and National Guardsmen assisted in the recovery effort.

²¹U.S. Code Congressional and Administrative News, *Legislative History: Public Laws 100-648 to 100-713* (St. Paul, MN: West Publishing, 1989), 6085-6.

²²Jeremy Kingston and David Lambert, *Catastrophe and Crisis* (London: Aldus Books Limited, 1979), 10.

²³Federal Bureau of Investigation Bomb Data Center, General Information Bulletin 97-1, *1997 Bomb Summary* (Washington, DC: Government Printing Office, 1997), 7.

²⁴See the *Disaster Relief Act of 1950* (PL 81-875), the *Disaster Relief Act of 1974* (PL 93-288), *The Robert T. Stafford Disaster Relief and Emergency Assistance Act* (PL 100-707), and CRS Report, *Federal Emergency Management and Homeland Security Options: Historical Developments and Legislative Options*, dated 1 June 2006.

²⁵“Under the provisions of the *Posse Comitatus Act*, neither the [Active Component] nor the Reserves may execute the law in the place of duly appointed law-enforcement means without specific presidential or congressional approval and direction. *The Posse Comitatus Act* does not apply to NG Title 32 soldiers until federalized.” Department of the Army, Training Circular 7-98-1, *Stability and Support Operations*

Training and Support Package (Washington, DC: Government Printing Office, 1997), 2-45.

²⁶Steve Bowman, *Homeland Security: The Department of Defense's Role* (Washington, DC: Congressional Research Service, 2003), 2.

²⁷Department of the Army, Field Manual 3-28, *Civil Support Operations* (Washington, DC: Government Printing Office, 2010), 1-15.

CHAPTER 2

LITERATURE REVIEW

The recent focus towards homeland security is due to negative trends in terrorist activities and natural disaster responses. With increased urbanization along the nation's coastlines, these trends add tremendous importance to homeland security efforts. The potential death and destruction caused by disasters weigh heavily on government leaders, homeland security strategists, and emergency management professionals. The US' recent disaster history raised their concerns, fueling research and debate. Most strategists acknowledge man's futility preventing natural disasters and the mounting frustration associated with preventing manmade disasters. The growth in the homeland security field reflects society's efforts to combat disasters.

The government has reached a relative consensus with its homeland security approach. The NRF and the National Incident Management System standardized response efforts across the levels of government and their respective agencies. With DHS and NORTHCOM's creation, there is no shortage of reference material identifying DSCA concepts and activities. The mission to protect the US is a long-standing DOD tradition. As domestic threats continue to grow and evolve, DOD doctrine portrays DOD's role within the government's response framework.

Federal leaders outline capabilities needed to defend the nation and protect citizens. President Obama describes a commitment to secure a more resilient nation in his *National Security Strategy* by "rebuilding an infrastructure that will be more secure and reliable in the face of terrorist threats and natural disasters."¹ He also discusses how such "steps complement efforts to integrate homeland security with national security;

including seamless coordination among Federal, state, and local governments to prevent, protect against, and respond to threats and natural disasters.”² The president declares in his *National Security Strategy* the importance of increasing domestic security, improving emergency management capabilities, and increasing national resilience.³ President Obama’s security policies state homeland security objectives.

DOD leaders mirror the President’s homeland security policies. The SECDEF in the *National Defense Strategy* recognizes the abilities of non-state actors to cause disasters including CBRNE disasters. He states, “DOD should expect and plan to play a key supporting role in an interagency effort to combat these threats, and to help develop new capacities and capabilities, while protecting its own vulnerabilities.”⁴ He further states,

While defending the homeland in depth, the Department must also maintain the capacity to support civil authorities in times of national emergency such as in the wake of catastrophic natural and man-made disasters. The Department will continue to maintain consequence management capabilities and plan for their use to support government agencies. Effective execution of such assistance, especially amid simultaneous, multi-jurisdictional disasters, requires ever-closer working relationships with other departments and agencies, and at all levels of government. To help develop and cultivate these working relationships, the Department will continue to support the Department of Homeland Security (DHS), which is responsible for coordinating the Federal response to disasters. DOD must also reach out to non-governmental agencies and private sector entities that play a role in disaster response and recovery.⁵

The Chairman of the Joint Chiefs of Staff (CJCS) in the *National Military Strategy* reinforced the SECDEF’s homeland security statements. The CJCS also specifically tasks the military to support civil authorities during emergencies to mitigate attack consequences using active and reserve component capabilities.⁶ The CBRNE consequence management and Civil Support Operations fields, within the military,

continue development due to the SECDEF and CJCS's homeland security emphasis in both the *National Defense Strategy* and the *National Military Strategy*.

It is clear US leaders, specifically members of the National Security Council, recognize the disaster threat and expect DOD to assist the US in maintaining its resolve against disasters. The President, SECDEF, and CJCS set the strategic context for the military's role in responding to disasters. In their strategies, they communicate the role of civil support operations by recognizing the threat, determining DOD requirements, and defining DOD's role within a coordinated federal response threat.

Army Field Manual (FM) 1, *The Army* and Army FM 3-0, *Operations* represent the Army's capstone documents that describe how the Army operates. The Army operates according to the elements of its full spectrum operations concepts: offense, defense, stability, and civil support operations. These manuals highlight threats to national security, reflect national security policies, and detail the Army's role in providing the nation's defense. The capstone manuals capture defense priorities for DOD's landpower component.

FM 1 stresses actions to prevent and respond to terrorism, but rarely mentions natural disasters, their effects, and actions to mitigate them. In a trivial manner, it acknowledges both natural and manmade disasters as threats to national security. Domestic industrial accidents that evolve into disasters deserve more prominence as a threat to national security; the FM mentions manmade accidents in one, isolated sentence.⁷ If defense leaders distinguish the importance of responding to natural and manmade disasters, FM 1 should distinguish it as well. FM 1 also says the key to maintaining relevant and ready Army forces to defeat terrorism is to establish balanced

capabilities while training.⁸ Yet, it does not emphasize domestic security operations as they pertain to both disaster types. FM 1 asserts Army forces need to maintain high levels of readiness because time is a valuable commodity when emergencies arise, especially terrorist related emergencies.

In comparison to national defense objectives, FM 1 exhibits some inconsistencies. Chapter 2 lists national military objectives but it does not include *Civil Support Operations* as a national military objective.⁹ This opposes the CJCS and SECDEF's guidance for DOD to support civil authorities. It does state the army exists to serve the people, protect national interests, and fulfill the nation's military responsibilities.¹⁰ The manual fails to relate national interests to homeland security. FM 1's national defense objectives do not follow the strategic objectives provided by national defense leaders.

Contrary to FM 1's insignificance towards civil support operations, FM 3-0, *Operations*, characterizes civil support operations as a full spectrum operations' element. Chapter three describes, in nearly three pages of text, civil support concepts, tasks, and purposes in response to any disaster. The chapter also depicts the role of civil support operations within the framework of homeland defense operations and emergency preparedness planning.¹¹ FM 3-0 places, in accordance with CJCS and the SECDEF's guidance, appropriate emphasis on civil support objectives.

Perhaps, the difference in the Army's two capstone documents lies with the published dates of the two field manuals. The Army published FM 3-0 in 2008. Hurricane Katrina made landfall two months after the Army published FM 1 in 2005. FM 1 concepts stress terrorism prevention due to lessons learned from 9/11's prevention failures. Moreover, FM 3-0's added concepts evolve due to additional lessons learned

from Hurricane Katrina's response failures. FM 3-0 reflects the magnitude of civil support operations within the domestic security framework in the same manner as the President, SECDEF, and CJCS where FM 1 does not.

The Army has one dedicated field manual for civil support operations, Field Manual 3-28, *Civil Support Operations*, published in August 2010. As people read the manual, they will quickly come to understand the roles of the various agencies in supporting the NRF. It defines many relevant civil support terms, organizations, key positions, tasks, limitations, and goals for DOD personnel. It details considerations for the primary civil support tasks. FM 3-28 properly describes both types of disasters and associated impacts. In short, it is a comprehensive "Civil Support 101."

Compared to FM 3-28.1, *Civil Support*, published in 2007, the new FM 3-28 exhibits stronger civil support content for tactical units; but the potential to specify essential civil support tasks remains high. A stark difference in tone exists within the newer version of FM 3-28 compared to the 2007 version. It improves greatly upon the generic planning considerations provided in FM 3-28.1. As a brigade commander tasked to support a lead agency in response, the newest FM 3-28 is more helpful in providing operational depth and establishing pre-coordination requirements.

FM 3-28 fails to assist the brigade in preparing for a disaster response mission. It is very similar to Field Manual 100-19, *Domestic Support Operations* dated July 1993. They discuss domestic support operations at the strategic and operational war levels. The manuals provide implicit civil support tasks for commanders and staffs. FM 3-28 states: the purpose of

[t]his field manual (FM) provides keystone Army doctrine for civil support operations. It expands on the discussion of civil support operations, the fourth element of full spectrum operations, in FM 3-0. This manual focuses on the planning, preparation, execution, and assessment of civil support operations, which are conducted within the United States and its territories. It discusses the role of Army forces cooperating with and supporting civilian organizations in domestic operational environments, with particular emphasis on how operations conducted by Army forces within the United States differ from full spectrum operations conducted overseas.¹²

FM 100-19 states its purpose is as follows:

[t]his manual provides the capstone doctrine for US Army and US Marine Corps domestic support operations. It also provides general information to civilian authorities at federal, state, and local levels involved in planning for and conducting such operations. It identifies linkages and defines relationships with federal, state, and local organizations and with other services that have roles and responsibilities in domestic support operations.¹³

FM 3-28 delves further into CBRNE disaster response planning considerations but fails to identify essential CBRNE tasks for tactical units. It intends for leaders to utilize it for civil support execution; yet, no essential tasks exist beyond the operational war level tasks: provide support for disasters, provide support for CBRNE incidents, provide law enforcement support, and other designated support.¹⁴ More importantly, FM 3-28 does not effectively incorporate the homeland security objectives provided by national defense leaders.

FM 3-90.6, *The Brigade Combat Team* does not address homeland security policies. It fails to identify civil support operational or tactical tasks. It also fails to identify disasters as threats.¹⁵ Comparatively, as elements of full spectrum operations, offensive operations within FM 3-90.6 contains twenty-five pages of text, defensive operations contains thirty-five pages, stability operations contains twenty-seven pages, and civil support operations contains four pages. Gap Crossing Operations within FM 3-90.6 contains five pages of text. Although the complexity of Gap Crossings is not in

question, the lack of information regarding Civil Support Operations, an element of full spectrum operations, is quite questionable.

Further analysis of tactical Army doctrine does not indicate a consistent emphasis on civil support operations. FM 3-21.20, *The Infantry Battalion* provides a dedicated chapter to Civil Support Operations that equals, in importance, the other elements of full spectrum operations. It contains fifteen pages of text with civil support fundamentals, forms of civil support operations, civil support operational planning, operational sequencing, operational patterns, and training considerations for the unit and basic soldier.¹⁶ Interestingly, FM 3-90.5, *The Combined Arms Battalion* only has about two pages dedicated to civil support operations.¹⁷ Although not entirely absent within doctrine, Army FMs do not consistently follow national homeland security objectives.

Without reviewing every field manual in the Army inventory, its most fundamental supporting documents appear to have mixed results in reflecting the BCT's essential civil support tasks. In FM 7-15, *The Army Universal Task List*, the manual lists the task "Conduct Civil Support Operations" as a component of full spectrum operations with three supporting tasks: provide support in response to a disaster, provide support to law enforcement, and provide other support as required.¹⁸ The next edition will probably reflect the primary civil support tasks identified in the new FM 3-28. Fortunately, most stability tasks have an application in civil support operations; a task crosswalk is included in a FM 3-28 appendix. However, the Army's doctrine does not thoroughly reflect the significance of its role in mitigating disaster impacts.

The emergency response literary field is quite large considering the actual number of first responders, emergency management specialists, healthcare professionals, disaster

subject matter experts, et cetera within the US. The military has a representative population of emergency management professionals, extensive logistical capabilities, and specialized CBRNE skill sets; the literary field documents this well. Obviously, the emergency response field intensified after the 9/11 and Katrina disasters. DOD's role within the national emergency response framework only deepens the amount of information available to conduct DSCA research.

Throughout the US, events frequently challenge Army disaster response theories within the emergency response field. The Army has a long history of responding to disasters within the US. The Army's primary purpose of civil support, whether the active or National Guard component, is to save lives, alleviate suffering, and protect property.¹⁹ Many theorists focus on legal restrictions associated with *the Posse Comitatus Act* or the National Guard's Title 32 authorities, filling the libraries with reasons for BCTs to fail during times of need. These theorists forget the President's homeland security objectives and most legislative statutes provide authoritative leeway for DOD personnel acting within the primary purpose of civil support operations.

The Army typically collects some form of information from each domestic support operation. The information is a recording of significant activities and lessons learned designed to improve future disaster operations. Operational plans, briefings, after-action reports (AAR), and standard operating procedures from recent civil support operations are examples of the types of information maintained in various archives. Books that describe army operations supporting federal responses are available as well. When addressing the Army's role in providing support to civilian authorities, the amount of published information is somewhat overwhelming for individual researchers.

Although the literary field is abundant with DSCA concepts, the specific tasks Army personnel require to perform civil support operations is surprisingly scarce. For most unit personnel, the information is not easily assessable. The literary material fails to tie DSCA concepts to DSCA tasks. The lack of information makes determining essential civil support tasks difficult. Subject matter experts usually describe the Army's essential tasks during response operations in broad terms. The tasks are frequently limited to staff coordination among federal agencies. In *Preparing the U.S. Army for Homeland Security*, it discusses the Army's strategic approach to civil support operations and force development implications.²⁰ The lack of DSCA specified tasks in literary works provides little depth for BCTs executing civil support operations.

CBRNE tasks dominate literary works when professionals do address specific Army tasks. The specific tasks appear designed for specialized units including the Marine Corps' Chemical Biological Incident Response Force, the National Guard's Weapons of Mass Destruction Civil Support Teams, and the CCMRF. Although most DSCA publications highlight terrorism and WMD, the lack of information regarding DSCA support during natural disaster responses infers the natural disaster threat is somewhat insignificant compared to the manmade disaster threat.

The BCT's primary strength lies in its ability to provide trained, disciplined manpower. However, the BCT is not a specialized CBRNE unit; it cannot perform the CBRNE mission without highly trained personnel. CBRNE units are resourced to provide technical skills, not general support. The extensive amount of CBRNE information is almost immaterial for the BCT.

The Army struggles in determining essential civil support tasks. Therefore, tactical units struggle implementing civil support training strategies. The Army's current concept of civil support operations during a disaster response is to respond with three CCMRFs. A CCMRF consists of three brigade-sized elements: Task Force Operations, Task Force Aviation, and Task Force Medical. The CCMRF falls under NORTHCOM for command and control during federal emergencies. Yet, issues still exist for the CCMRF concept, leaving the BCT civil support task question still unanswered.

Without assigned units and plans that integrate the active and reserve portions of CCMRF, and agreements between DOD and the states on availability of National Guard units and the duty status in which they would respond to an incident requiring federal forces, DOD's ability to train and deploy forces in a timely manner is at risk. . . . DOD recognizes it may need additional units to augment this force, but specific units that would be needed to augment CCMRF have not been identified. Unless these units are identified in advance and trained for the mission, they may be unable to deploy rapidly.²¹

Where does the BCT gather information to conduct training operations in preparation for civil support operations? Will the units have time to search the archives for lessons learned prior to their civil support operations? Although Army publications continue to evolve in a positive direction, civil support operations remain difficult for tactical units today. The Army needs to organize the large amount of disaster response information and develop universal tactical civil support tasks and subtasks. This supports NORTHCOM's true mission as stated by General Renuart, Commander of NORTHCOM in 2009. "When directed by the President or the Secretary of Defense, NORTHCOM will support Federal primary agencies in responding quickly to natural disasters, catastrophic incidents, and the effects of terrorist attacks."²² With the competing demands placed on today's BCTs, the requirement to identify essential civil support tasks is likely to receive no action within the BCTs. Civil support tasks must have a place in Army doctrine.

¹The White House, *National Security Strategy* (Washington, DC: Government Printing Office, 2010), 2.

²*Ibid.*, 2.

³*Ibid.*, 10.

⁴Department of Defense, *National Defense Strategy* (Washington, DC: Government Printing Office, 2008), 7.

⁵*Ibid.*, 7.

⁶*Ibid.*, 10.

⁷Department of the Army, Field Manual 1, *The Army* (Washington, DC: Government Printing Office, 2005), 1-10.

⁸*Ibid.*, 3-7.

⁹*Ibid.*, 2-5.

¹⁰*Ibid.*, 2-8.

¹¹Department of the Army, Field Manual 3-0, *Operations* (Washington, DC: Government Printing Office, 2008), 3-17 to 3-19.

¹²Department of the Army, *Civil Support Operations*, v.

¹³Department of the Army, Field Manual 100-19, *Domestic Support Operations* (Washington, DC: Government Printing Office, 1993), vii.

¹⁴Department of the Army, *Civil Support Operations*, 1-12.

¹⁵Department of the Army, *The Brigade Combat Team*, 1-6 to 1-7.

¹⁶Department of the Army, Field Manual 3-21.20, *The Infantry Battalion* (Washington, DC: Government Printing Office, 2006), 7-1 to 7-15.

¹⁷Department of the Army, Field Manual 3-90.5, *The Combined Arms Battalion* (Washington, DC: Government Printing Office, 2008), 8-17 to 8-19.

¹⁸Department of the Army, Field Manual 7-15, *The Army Universal Task List* (Washington, DC: Government Printing Office, 2009), 7-23 to 7-28.

¹⁹Department of the Army, *Civil Support Operations*, 1-15.

²⁰Eric Larson and John Peters, *Preparing the U.S. Army for Homeland Security: Concept, Issues, and Options* (Santa Monica, CA: Rand Corporation, 2001), 96-181.

²¹Government Accountability Office, *Homeland Defense: Planning, Resourcing, and Training Issues Challenge DOD's Response to Domestic Chemical, Biological, Radiological, Nuclear, and High-Yield Explosive Incidents* (Washington, DC: Government Printing Office, 2009), 1 and 4.

²²House Armed Services Committee, Commander, United States Northern Command, before the Subcommittee on Terrorism and Unconventional Threats and Capabilities, 110th Cong., 2d sess., 5 March 2008.

CHAPTER 3

RESEARCH METHODOLOGY

The NRF potentially requires immense Army support as federal agencies respond to disasters. No federal agency has the massive manpower or vast capabilities associated with the Army's three components: Active Duty, the National Guard, and the Army Reserve. The nation expects the Army, in all its forms, to act decisively when a disaster occurs. The Army's lack of urgency presents a significant risk to federal disaster response. The Army has to recognize its budding ability to affect disaster responses in a positive manner, especially large-scale responses.

This study identifies the essential factors that reduce disaster impacts. These factors will assist tactical units conducting civil support operations. The study is a doctrinal application. The goal is to develop an essential task list from studying some previous civil support operations. The analysis will enable tactical success for units assigned to support civil authorities during disaster responses.

The analysis begins with an understanding of the disaster threat. Army publications do not describe the disaster threat consistently. They also fall short explaining the threat in context with national defense policies. The threat analysis will follow the Joint Intelligence Preparation of the Operational Environment tenets. Without an understanding of the disaster threat, the Army is not likely to safeguard its role within the NRF or prioritize BCT availability for civil support missions. In addition, BCTs are less likely to train civil support operations. If the entire Army does not have an appreciation for the disaster threat, the army will not actively engage in mitigating disaster effects. Starting the analysis with the disaster threat sets the stage for civil

support task development because the threat determines how the Army integrates into federal disaster responses.

The NRP [National Response Plan] can be partially or fully implemented in the context of a threat, anticipation of a significant event, or in response to an incident requiring a coordinated Federal response. This includes events with potential national or long-term implications such as a public health emergency or a cyber incident. Selective implementation through the activation of one or more of the NRP elements allows maximum flexibility to meet the unique operational and information-sharing requirements of any situation and enables effective interaction among various Federal, State, local, tribal, private-sector, and other nongovernmental entities.¹

Next, this study will identify emergency response principles using various academic sources. Emergency responders use these principles in all types of disasters. These principles set the foundation for building an essential civil support task. This study will present these emergency response principles within the Army's purpose for civil support operations: to save lives, alleviate suffering, and protect property. A familiarization with emergency response principles in context with Army doctrine will facilitate analysis of domestic Army operations.

Then, the study will categorize some important lessons learned from the Army's domestic support operations history. The lessons learned will add army experiences to the identified emergency response principles. These response principles will serve as essential civil support tasks for future civil support operations. A cursory view of Army history supporting civil authorities facilitates this study.

Finally, the study will use the essential tasks and conduct a theoretical application. The theoretical application will serve as an example of how BCTs can operate utilizing the essential civil support tasks. BCTs can analyze the tasks to determine their essential tasks. Each unit will have the ability to develop its civil support training strategy from

this essential task list. These essential tasks will focus operational preparation, execution, and assessment. The essential civil support tasks will improve BCT performance during federal disaster responses.

This study's purpose is to identify essential civil support tasks to aid BCTs conducting civil support operations. The task list will articulate what tasks the BCTs must perform to support civil authorities. The 9/11 Commission expressed this desire by stating, "[h]omeland security forces must possess the ability to deter, protect, and respond to threats to the American homeland. . . . They should be trained and equipped to respond as deployable forces to natural, manmade, and/or WMD-triggered disasters."²

In essence, this study will use civil support concepts, analyze historic examples, and present an essential task list. It will improve the Army's ability to provide DSCA during disasters. The final product will contain relevant tasks to prepare a domestic support operation. Hurricane Katrina and 9/11 sparked dramatic reforms in disaster relief efforts; the Army must recognize these impacts, internalize these reforms, and institute change accordingly within tactical formations. After all, "every disaster has a zip code," according to the final draft of FM-3-28.³ Units will execute civil support operations with more skill, precision, and speed due to better preparation. Steven Fink's *Crisis Management* says, "understand that anytime you're not in a crisis, you are instead in a pre-crisis, or prodronal mode. Anytime. All the time. Be vigilant. Be prepared. And if you operate in a prodronal, or vigilant state, you may catch sight of something that needs to be addressed quickly, before it gets out of control. Before it becomes an acute crisis."⁴

¹Department of Homeland Security, *Quick Reference Guide*, 1.

²National Commission on Terrorist Attacks Upon the United States, 77.

³Department of the Army, *Civil Support Operations*, Final Approved Draft (Washington, DC: Government Printing Office, 2010), 3-1.

⁴Steven Fink, *Crisis Management: Planning for the Inevitable* (Lincoln, NE: iUniverse, Inc., 2002), 7.

CHAPTER 4

ANALYSIS

The Disaster Threat

Understanding the disaster threat and understanding the operational environment are critical tasks for tactical units preparing to conduct civil support operations. “Prepare” is a key element of the Army’s operations process. Preparation mitigates disaster effects and enhances disaster support operations. The better-prepared units will place themselves in the best position to aid civil authorities during crisis periods by conducting a pre-crisis threat and operational environment analysis. Spontaneous civil support operations without prior threat and operational environment analysis will not minimize human suffering during disaster responses. This study begins with this analysis to ensure common understanding across Army units.

The joint intelligence preparation of the operational environment process will assist in understanding the threat and operational environment. Joint Publication (JP) 2-01.3, *Joint Intelligence Preparation of the Operational Environment* defines it as “the analytical process used by joint intelligence organizations to produce intelligence assessments, estimates, and other intelligence products in support of the joint force commander’s decision-making process.”¹ The steps are: define the operational environment, describe the impact of the operational environment, evaluate the adversary, and determine the adversary courses of action. The process will aid this BCT disaster response study.

The BCT’s civil support operational area is the US and its territories. It includes a large population living along coastlines vulnerable to natural disasters. It also includes

US interests abroad such as embassies, disasters affecting allies, and activities designed to protect those interests. The operational area is a rich target environment where terrorists may attack people, places, and activities. The Army, providing support during domestic disaster responses, may assign any available BCT to respond anywhere within the US.

The US is the third largest country in the world with an estimated 310 million people and an area reaching nearly ten million square kilometers. It shares twelve thousand kilometers in border length with Canada and Mexico. The mostly temperate climate produces flooding, wild fires, tornadoes, and hurricanes. Hawaii's tropical and Alaska's arctic characteristics are the exceptions. The urban areas hold over 80 percent of the population. Twenty-three of the twenty-five most densely populated counties are coastal counties. Approximately 153 million people, half the estimated population, live in 673 coastal counties, covering seventeen percent of US land area excluding Alaska. Its geological formations produce volcanoes, earthquakes, tsunamis, and mudslides. The US' physical characteristics are very diverse.

The US has the largest economy in the world with a \$46,400 per capita GDP. It is the world's largest consumer of oil, natural gas, and electricity. It is the first, second, and third most producer of electricity, natural gas, and oil respectively. The US is also the world's second and third largest user of telephone lines and cell phones respectively. It has the second highest number of internet users; no nation surpasses the US in number of internet hosts. The US has the following infrastructure characteristics: over 5,000 paved airport runways, nearly 900,000 km of oil and natural gas pipelines, over 225,000 km of railways, 6.5 million km of roadways, and 19,000 km of commercial waterways.²

American expectations for its Army during crises often conflict. Many expect the Army to respond in force, save lives, and restore normalcy in the most efficient manner. They regard Army assistance during disasters as critical to national security. Yet, many also believe this assistance inhibits individual rights and freedoms. They expect the Army to remain neutral when disaster strikes and not use a national emergency to extend its powers. The US Constitution and the *Posse Comitatus Act of 1878* limit military powers to protect American citizens. Yet, the Stafford Act requires significant DSCA during disaster responses. The Army must act decisively to save lives despite the conflicting expectations.

The passionate debates in our democratic society influence Army operations especially considering the cable news and its 24-hour coverage. Army civil support activities, during domestic responses, will receive minute-by-minute judgment by a nation of military analysts to determine how the army should act or failed to act. For every helpless victim seen on television without Army assistance, Americans will question if the Army is doing enough. Alternatively, the news shows will display the Army's use of force against citizens to restore law and order; this will cause some to question the Army's authority to enforce laws. The demand to protect individuals will remain at odds with the demand to preserve individual rights. "The response to Hurricane Katrina caused President George W. Bush to wonder aloud about expanding the Army's role in domestic emergencies. But if that role is expanded, how might a still-skeptical public react? How should the Army comport itself to allay suspicion about its motives?"³

The Army will execute NORTHCOM's mission to defend, protect, and secure the US.⁴ Admiral James Winnefeld, NORTHCOM Commander, during his senate

confirmation hearing stated, “I can think of no greater responsibility than protecting our people and our way of life by leading our homeland’s last military line of defense and by providing support at the Federal, State, and local level in times of great need. There are no points for second place in either one of these missions and I view this as a sacred trust.”⁵ The Army has provided domestic support since the creation of the Freedmen’s Bureau during the Civil War Reconstruction Period.⁶ The Army’s history includes law enforcement support, disaster response support, and general support to civil authorities.

Disasters threaten US national security. Disasters always loom on the horizon.⁷ They violently change environmental conditions and tend to challenge human survival. Their destruction potential remains high despite technological advances; humans remain susceptible to the forces of nature. Disasters are a constant source of concern to society. In Jeremy Kingston’s *Catastrophe and Crisis*, he states, “[m]an is involved in a continual struggle against disaster- both those, such as earthquake or flood, that are due to the natural environment and those . . . that spring from his own nature.”⁸

To describe disasters more precisely for response purposes, assume they occur in three phases: preparation, event, and residual. During the preparation phase, nature’s elements and the human aspects of a disaster begin to combine. The preparation phase length depends on the disaster. The preparation period is pertinent to responders because a longer period length allows for more disaster mitigation. The event phase is the period where the actual incident occurs. The incident negatively affects people. The residual phase begins after the event and includes the residual effects upon people. It is the responsibility of responders to limit or contain the event’s impact. Phasing allows some

insight into how BCTs may begin disaster analysis and targeting. If preparation efforts fail, then the BCT will not maximize disaster mitigation.

A cyclone, as an example, during the preparation phase forms as air temperatures and air pressures change rapidly. Science regularly provides responders pending cyclone indicators that help them execute procedures to mitigate the cyclone's impact. The event phase happens as a cyclone enters a populated area. During the residual phase, cyclones have negative physical and psychological effects on people. The responder's primary goal is to limit those effects. Modeling disaster activities in a simple manner helps identify how to mitigate disaster effects.

Webster's Dictionary defines the various types of disasters. An earthquake is a sudden movement of the earth's crust caused by stress accumulated along geologic faults or by volcanic activity. A volcano is a vent in the earth's crust through which molten rock, ash, and gases are ejected. A cyclone is a storm or system of winds that rotates about a low-pressure center and is usually accompanied by stormy and destructive weather. A flood is an overflow of water onto land that is normally dry. A disease is a condition of an organism that impairs normal physiological functioning. An industrial accident is an unexpected, undesirable event related to industry. Terrorism is the political use of violence or intimidation.⁹ These definitions represent most US disaster hazards but this listing is not an all-inclusive list. These disasters have enormous potential to cause death and destruction in US populated areas.

Disasters have a capability to kill thousands of people or create extensive damage. They remain poised to continue this destruction despite human efforts. Sometimes, they lead to additional disasters; an example is a natural disaster that leads to a disease

outbreak or industrial accident. “In many ways man has made his environment much more hospitable over the past few centuries, yet with all the armory of modern science at his command he is still in danger from the same age-old enemies that have pursued him down the ages[.]” according to Jeremy Kingston.¹⁰ Disasters seem vulnerable to damage reduction only where mitigation measures are effective. Disasters are not vulnerable to “wishful thinking” or “crying wolf.” The better defense efforts detect, respond to, and recover from disasters, the more likely those efforts will minimize the disaster’s impact on the population. *Learning from Catastrophes*’ Howard Kunreuther comments,

Left to our own devices, we tend to under appreciate such low-probability, high-consequence events. Our minds often turn them into “no likelihood”--although sometimes into the opposite and equally pernicious prescription of “near certainty.” As a result, those who are responsible for leading major institutions have a special and specific calling to recognize and guard against these human shortcomings.¹¹

Earthquakes are a low-probability, high-consequence event common to several US areas including the western states, southeast Missouri, Hawaii, and Alaska. The largest earthquake in US history, with a magnitude 9.2 on the Richter scale, occurred in 1964 in Alaska. The US averages fifty-seven magnitude 5.0 or higher earthquakes and six 6.0 magnitude or higher earthquakes per year. The 1994 Northridge, California 6.7 magnitude earthquake killed 33, injured over 9,000, and displaced over 20,000 people.¹² Collapsing structures due to violent shaking cause most injuries and damage during earthquakes.

Volcanoes represent the most volatile disaster threat within the US. The US has eleven percent of the world’s active volcanoes; they are located in Alaska, Hawaii, Washington, Oregon, and California. Since 1980, thirty-three US volcanoes have erupted forty-five times. The world’s largest active volcano, Muana Loa, is in Hawaii. In 1980,

Washington's Mount Saint Helens volcanic eruption killed fifty-seven people. Typical volcano characteristics are explosive blasts, lava flows, spewing lava, ash clouds, and toxic gases that cause massive injuries and damages.¹³

Hurricanes are the most nagging threat to the US. With each developing hurricane, the potential exists to repeat the impact caused by the 1900 Galveston Hurricane where 8,000 people died. The hurricane season occurs from 1 June through 30 November. Hawaii, the Atlantic Coast, and the Gulf Coast are most vulnerable to hurricanes. The storms bring torrential rains, powerful winds, and storm surges, bringing extensive harm to people and the environment.¹⁴

Floods are the most common disaster threat the US faces. They threaten lives and property in every state. On average, floods kill 140 people and cause \$6 billion in damage per year. Hurricanes, storms, heavy rains, snowmelts, and dam (levee) breaks cause most floods. Hurricane Katrina created a flood and caused the costliest disaster in US history. Tsunamis, resulting mostly from earthquakes, may also cause flooding. The five most western states are most vulnerable to tsunamis including Alaska and Hawaii. The high waters easily displace people, may drown people, and typically cause widespread damage.¹⁵

With the rise of terrorism, the CBRNE threat is probably the most horrific disaster threat. When CBRNE materials are absorbed, inhaled, or ingested in dangerous amounts, they impart major physical and psychological hazards upon the population. There are at least one hundred twenty chemical plants in the US that place more than one million people in danger if an accidental release occurs.¹⁶ The 1979 Three Mile Island incident in Pennsylvania nearly brought the most feared industrial accident into fruition.

Humans, animals, food, and water spread germs, causing infectious disease. Quarantine, isolation, and vaccination are examples of methods used to control the spread of diseases.¹⁷ History provides numerous examples of people using CBRNE material to hurt Americans. In 1984, the Rajneesh Cult in Antelope, Oregon contaminated salad bars in local restaurants with typhoid bacteria.¹⁸ The 2001 Anthrax scare exacerbated existing nuclear, biological, and chemical WMD fears. From 1997 to 2005, sixteen Avian Influenza A outbreaks occurred in the US.¹⁹ The Centers for Disease Control estimated over 12,000 people died from the 2009 H1N1 influenza outbreak.²⁰ Some international and domestic organizations may use weaponized CBRNE material to harm Americans. The CBRNE disaster threat including WMDs has the potential to kill thousands of people and cause incredible damage.

Civil disturbances are somewhat inherent to disaster impacts. People may not act rationally during disasters especially if they believe their survival is at risk. Civil authorities are quickly overwhelmed when disasters affect entire communities. Civil disturbances present significant challenges for civil authorities and require the use of force to maintain security. FM 3-19.15, *Civil Disturbance Operations* states,

[c]ommunity unrest results in urban conflicts that arise from highly emotional social and economic issues. Tensions can build quickly in a community over a variety of issues, such as hunger, poor employment opportunities, inadequate community services, poor housing, and labor issues. Tension in these areas creates the potential for violence. When tensions are high, it takes a small (seemingly minor) incident, rumor, or act of injustice to ignite groups within a crowd to riot and act violently. This is particularly true if community relations with authorities are part of the problem.²¹

Local law enforcement authorities, during disasters, may require assistance in maintaining peace and order within the community. Disasters may either diminish or

erode their law enforcement capacity. The BCT must prepare to support or act as law enforcement to maintain security and minimize civil disturbances.

This analysis defines the operational environment, describes the impact of the operational environment, evaluates the disaster threat, and determines threat courses of action. BCTs will face disasters within the US and aid civil authorities in detecting, responding to, and recovering from disasters. By identifying the threat and operational conditions early, BCTs will better prepare to conduct civil support operations. This will increase their ability to mitigate the disaster threat and better support civil authorities during a disaster response. FM 3-28.1, *Civil Support Operations* reads,

there are important differences about operations conducted in support of civil authorities—principally, the roles of civilian organizations and the relationship of military forces to federal, state, and local agencies. How, when, where, and what support Army forces provide depends upon specific circumstances. Soldiers and civilians need to understand this environment so they can employ the Army’s capabilities efficiently, effectively, and legally.²²

Emergency Response Principles

Emergency management, like Army tactics, is an art and a science. Professionals practice disaster response skills daily across the US according to basic rules. Finding common disaster response principles is not a complicated process. Although no disasters are the same, they affect people in similar ways. Disaster mitigation centers on reducing those effects. Recording emergency response fundamentals lays the foundation to identify essential civil support tasks.

The federal government’s approach to disaster response originates with the Comprehensive Emergency Management (CEM) concept. The government’s approach evolved significantly since the *Disaster Relief Act of 1950*, the first comprehensive disaster relief law.²³ In 1978, the National Governor’s Association identified critical

shortfalls in the federal disaster relief process. Its 1979 publication, titled *Comprehensive Emergency Management: A Governor's Guide*, detailed two concerns: a nonexistent national response policy for all types of disasters and the fragmented state responses to emergencies. Within the publication, the National Governors Association introduced the new CEM concept. CEM was the backdrop for federal response efforts and FEMA throughout the 80s and 90s. It also serves as the basis for today's NRF. The guide defined CEM as follows:

[CEM] refers to a state's responsibility and capability for managing all types of emergencies and disasters by coordinating the actions of numerous agencies. The "comprehensive" aspect of CEM includes all four phases of disaster or emergency activity: mitigation, preparedness, response, and recovery. It applies to all risks: attack, man-made, and natural, in a federal-state-local partnership.²⁴

CEM illustrates how BCTs should approach disaster response operations. During federal responses, BCTs will operate alongside other government agencies, requiring interagency coordination. The NRF, similar to CEM, describes response using three phases: prepare, respond, and recover. The BCT, doctrinally, conducts operations in phases to facilitate simultaneity and synchronization. Implementing CEM's prepare, respond, and recover phases in a tactical civil support operation is desirable for BCTs and civil authorities.

The initial phase in CEM is preparation. Dr. Kevin Cahill, editor of *Emergency Relief Operations*, states, "[e]mergency relief operations begin long before a disaster occurs. . . . Predicting where and what, and how as well as why, a disaster is likely to occur allow major relief agencies and organizations to plan, stockpile, and begin coordinated efforts that must flow from policy rooms to field operations."²⁵ Preparation also increases the probability of mission success and unit effectiveness in military

operations. BCTs need to prepare prior to conducting civil support operations to increase their probability of success and unit effectiveness.

The Army, when called upon to conduct civil support operations, will utilize its forces to achieve its primary purpose: to save lives, alleviate suffering, and protect property.²⁶ Current global commitments influence the Army's BCT utilization, affecting every Army BCT. There are 40 active component BCTs and 33 National Guard BCTs.²⁷ The Army deployed a large portion of its BCTS in support of Operations Enduring Freedom and Iraqi Freedom. Every non-deployed BCT can expect to respond to disasters. In *Crisis Management*, Steven Fink says, "[y]ou should view and plan for the inevitability of a crisis in much the same way you view and plan for the inevitability of death and taxes: not out of weakness or fear, but out of the strength that comes from knowing you prepared to face life and play the hand that fate deals you."²⁸

Disaster preparation includes early warning; equipment preparation; and mobilization, organization, and rapid deployment. It begins with early warning. Early warning is a process to collect and disseminate disaster information to determine actions that reduce disaster impacts. Disaster information includes surveys, assessments, current reports, trends, forecasts, risk analyses, and indicators.²⁹ Early warning also provides common understanding and situational awareness to unit personnel, facilitating planning and preparation activities. It also allows efficient organization because units can augment personnel with subject matter experts and balance personnel strengths.

The next step in the preparation phase is preparing response equipment.³⁰ Response equipment differs from combat equipment so units must dedicate time to acquire, learn, and prepare response equipment. Augmentees may also bring specialized

equipment to enhance operations. The unit logisticians must sustain the response equipment set. It may also require special coordination and deployment consideration. Units must maintain equipment readiness for domestic operations with the same vigor as a combat operation.

Readiness also includes the ability to mobilize, organize, and deploy rapidly. The advance party personnel should deploy within hours of notification. Subject matter experts and capability enhancers must integrate into existing unit organizations quickly. Prepared units will mobilize, organize, and deploy faster than non-prepared units. *Emergency Relief Operations* advises, “[w]e must learn to be quicker to detect and prepare for crises before they occur. The earlier we intervene, the more likely we are able to have a meaningful impact on the ground.”³¹ BCTs failing to prepare reduces the Army’s effectiveness during the response phase.

The response phase is the most critical phase during civil support operations. During a disaster, it is almost certain that a BCT will execute this charter when local and state authorities become overwhelmed. It is during the response phase where the BCT executes its charter with civil authorities to save lives, alleviate suffering, and protect property. *Emergency Relief Operations* also says,

[i]n the event of a natural disaster, such as an earthquake or volcano, thousands of lives are put at immediate risk. Many can be lost within hours or days of the incident if search and rescue and other life-saving efforts are delayed. In these cases, a rapid initial response is critical, and often more easily applicable, to the goal of saving lives.³²

In essence, the Army’s mission is to quickly conduct stability operations where civil authorities are unable to act. BCTs will conduct full spectrum operations in various situations. They must comply with use of force rules to save lives and protect property.

They are not likely to conduct operations for extended periods due to legal and operational restrictions. The response phase is an opportunity for units to conduct decisive actions and to contain the incident quickly. BCTs will deploy to save lives, alleviate suffering, and protect property during the disaster response phase.

Saving lives is the highest priority in disaster response. Establishing an incident site is a vital step towards saving lives. Responders approach the incident site with caution to ensure personnel safety. Secondly, they will report the incident type using an acronym such as CHALETS. This describes casualty numbers by type, hazards, access routes for emergency responders, location, emergency services present and required, incident type, and personnel safety considerations. If a chemical, biological, or radiological hazard exists, then it is also necessary to describe the source, the exposure pathways, and the at-risk population.

Next, responders need to establish exclusion zones: an inner zone to contain immediate dangers (hot zone), a contamination reduction zone to conduct life saving treatment or decontamination (warm zone), and an outer zone for incident support (cold zone). Security personnel prevent unauthorized entry and exit from exclusion zones.

Finally, evacuations are required if the incident site poses a danger to people. Mass casualty incidents require a rapid classification of injuries to conduct first aid and patient handover to healthcare facilities. Responders must have an ability to extract and move victims from the exclusion zones. Self-evacuation occurs when people believe their health or security is severely at risk; and during their movement, they may become more exposed to the risk.³³ These initial measures establishing an incident site represent the best practices to maximize life-saving efforts.³⁴

The second priority during a disaster response is to alleviate suffering. This begins the recovery phase. The best ways to alleviate suffering are to provide adequate water, sanitation, and shelter according to Dr. Frederick Burke in *Emergency Relief Operations*.³⁵ Responders conduct a rapid assessment of needs utilizing numerous three to five member teams, preferably trained in water utilization, sanitation, logistics, and public health.³⁶ Basic needs include many water, sanitation, hygiene, and shelter considerations (see figure 1).³⁷ Primarily, these considerations are logistic specific tasks. Basic needs restoration is essential for survival, health, and human dignity.

<u>CONSIDERATIONS</u>				
WATER	SANITATION	HYGIENE	SHELTER	
Quantity	Excretia	Education Programs	Temporary	Ventilation
Quality	Organic Material	Health Promotion	Permanent	Cooking Facilities
Protection	Inorganic Objects	Water	Site Planning	Storage
Storage	Storage	Sanitation	Security	Waste Disposal
Treatment	Collection	Media Relations	Soil Type	Potable Water Access
Testing	Recycling	Individual/ Family Interaction	Drainage	Goods/Services Access
Distribution	Disposal		Fuel Availability	Vector Control
	Industrial Waste		Vegetative Cover	Construction Material
	Waste Water		Individual Space	
	Medical Waste			
	The Dead			
	Vector Control			

Figure 1. Considerations

Source: Created by author.

The final priority during a disaster response is to protect property. Civil authorities govern the appropriate use of force to protect property. Although most

authorities prefer the military supports law enforcement activities indirectly, circumstances dictate military use of force to support civil law enforcement. Civil authorities designate the critical facilities that require protection. Yet, BCTs must also possess an ability to determine what facilities require protection. Utility, housing, and life support facilities are critical to disaster relief. In addition, the facilities with potential to cause further harm such as hazardous material storage facilities require special protection considerations. At a minimum, critical facilities should include facilities that support life-saving activities, present a continued health risk, and alleviate human suffering.

Disasters require maximum effort from responders to save lives, alleviate suffering, and protect property. Society will use this effort to judge the Army's performance. These basic emergency response principles will serve as the foundation for building an essential civil support task list. Yet, if this study's attempt to identify essential tasks fails, then these emergency response principles will certainly suffice as BCT disaster objectives (see Appendix A).

Lessons Learned

Lessons learned from previous Army operations will help discover essential civil support tasks applicable to future operations. Throughout its history, the Army conducted numerous civil support operations, creating some enduring disaster response principles. Hurricanes Andrew and Katrina, the Great Alaskan and Loma Prieta Earthquakes, and the Martin Luther King Assassination and Los Angeles Riots make an excellent sample of Army operations to draw essential tasks. These past operations will provide insight into future requirements.

The Army, supporting JTF Andrew, identified several lessons learned in its AAR dated 09 October 1992.³⁸ DOD formed JTF Andrew in response to Hurricane Andrew in August 1992; the Army response included elements from the 82d Airborne and 10th Mountain Divisions. JTF Andrew gathered lessons learned from medical, logistics, communications, security, engineering, public relations, and training activities.

JTF Andrew wanted to sustain several successful activities during its disaster response. The medical effort went extremely well. The medical staff managed it within eight functional areas: evacuation, treatment, facilities, preventative medicine, mental health, veterinary, dental, and medical logistics. The medics provided first aid and referred civilians to level I and II care facilities.

The logistics units mobilized early to develop the logistics infrastructure quickly including contractor support. Logisticians provided food, water, beds, bedding, clothing, and temporary shelters. They utilized vacant warehouses and parking lots to enable receipt, storage, and distribution operations. Contractor support included reefer vans, ice, dumpsters, and Porto-potties. Most importantly, the logisticians received disaster relief support from various organizations and DOD installations and developed a system to funnel it through one location, Fort Bragg.

JTF Andrew praised several support functions in its AAR. The engineers cleared runways, roads, and trailer courts; removed debris; built life support facilities; generated power; repaired rooftops and schools; and contracted engineer support. The Florida National Guard military police was not federalized and remained unconstrained by the *Posse Comitatus Act*. The military police conducted law enforcement, security operations, traffic control, area and route reconnaissance, VIP security, integrated with

civilian law enforcement, and rapid assessment team deployment. The public affairs personnel also deployed early and quickly established an information center to address media concerns. The JTF Andrew staff facilitated interoperability among active component units, National Guard units, private organizations, and local authorities by establishing areas of operations along municipalities and collocating army personnel with appropriate civilian counterparts early. These actions facilitated a successful disaster response operation.

JTF Andrew also identified areas for improvement to increase future effectiveness. It wanted to use contingency contracts, push construction material earlier, and establish a movement control center to quicken relief efforts. The initial assessment effort suffered because the damage assessment teams did not deploy early enough which included engineer and civil affairs personnel. Interoperability suffered as well because JTF personnel did not familiarize themselves with doctrine, disaster relief plans, and the federal response plan. Failing to conduct these actions efficiently hindered the JTF Andrew's response.

The Army learned many valuable lessons from Hurricane Katrina's controversial response. The storm's impact quickly overwhelmed local and state authorities in August 2005. There were 7,400 Army National Guard soldiers operating in Louisiana and Mississippi when Hurricane Katrina made landfall; the total number peaked to over 41,000.³⁹ Thousands of active duty soldiers from the 82d Airborne, 10th Mountain, and 1st Cavalry divisions served as members of JTF Katrina.⁴⁰ Most observers commended their contributions to the disaster response effort; their lessons learned also contribute to future civil support operations.

The Rand Corporation, in *Hurricane Katrina: Lessons for Army Planning and Operations*, made several observations concerning the Army's disaster response. Units conducted evacuations, search and rescue, security, supply distribution, medical care, law enforcement, infrastructure repair, and debris removal. Unrehearsed units failed to deploy within 24 hours of notification as some units exhibited. Most National Guard troops did not know their mission upon arrival because planners did not conduct a troop-to-requirement analysis. Units lacked situational awareness of units conducting operations in the same areas. The search and rescue efforts did not have proper command and control, causing units to strand victims for days without food and water.⁴¹

James Wombwell, in *Army Support during the Hurricane Katrina Disaster*, made several positive remarks regarding the Army's support to civil authorities. Army TFs provided food, water, shelter, and electricity. Successful units utilized strategic distribution points to maximize access. They provided numerous liaisons across their areas of operations. Units also used a messenger system until they established a communications system. Successful units also embedded National Guardsmen to protect themselves against *Posse Comitatus Act* restraints.

James Wombwell also noted some deficiencies in the Army's response. Army staffs did not conduct disaster response planning or maintain any form of emergency response plans. Units did not use military intelligence sources effectively to improve situational awareness. They did not deploy chaplains early to minister to the needs of their soldiers. He also recommended units bring enough food and water to last for one week.⁴² The tactical units conducted civil support operations fairly well during the

Hurricane Katrina disaster. However, units must bring the lessons learned from past operations forward.

Lieutenant General Raymond J. Reeves, Commander in Chief, Alaskan Command, noted lessons learned during the Great Alaska Earthquake of 1964. The 9.2 magnitude earthquake occurred 27 March 1964 near Prince William Sound, Alaska. The second largest recorded earthquake killed 131 people.⁴³ Alaskan Command created Operation Helping Hand to aid civil authorities during the earthquake response.

General Reeves observed successful logistical and aviation operations in JTF Alaska's response. He recognized airlift capabilities enhanced relief supply distribution, search and rescue operations, and evacuation efforts. The relief supplies ranged from baby food to heavy construction equipment. Search, rescue, and evacuation efforts occurred across very expansive terrain and amid challenging environmental conditions. The JTF established emergency routes by utilizing aerial photo reconnaissance and engineer route clearances. It also prioritized basic needs such as food, water, and housing. The commander found establishing communications across affected areas difficult. However, JTF Alaska eventually established communications including a system to ensure victims received public messages. It provided security to prevent looting.⁴⁴ JTF Alaska identified these activities as areas of concern for future operations.

The Army Corps of Engineers (USACE) responded to the Loma Prieta earthquake, recording lessons learned for future disasters. The Loma Prieta Earthquake, 7.1 magnitude earthquake, killed 62 people on 17 October 1989 during World Series Game 3.⁴⁵ The USACE, under 6th Army's and its own federal authorities, organized to provide disaster relief to affected areas in northern California.

USACE historian, Janet McDonnell, highlighted several actions applicable to future disaster responses. First, the USACE performed damage assessments for individuals, the private sector, and the public sector; provided engineer support and technical assistance to local, state, and federal authorities; and conducted engineer operations under its own authorities. The initial damage assessments included roadways, bridges, public facilities, and commercial and residential areas.⁴⁶ The USACE inspected nearly 20,000 residences for habitability and produced over 6,000 damage survey reports for public facilities.⁴⁷ Secondly, it established a Hazards Mitigation Team, manned with engineers primarily, to develop strategies to reduce or eliminate further damage.⁴⁸ Finally, Janet McDonnell recommends organizations, as USACE demonstrated, exercise their disaster response plans regularly and establish flexibility by allowing the organization to change as needed and to absorb qualified augmentees.⁴⁹ These actions enabled USACE success during their disaster response.

During disaster responses, authorities will likely face civil disturbances. Civil disturbances occurred in Chicago and Washington, DC in April 1968 following Dr. Martin Luther King Jr.'s assassination. A civil disturbance also occurred in Los Angeles in 1992 following a controversial court ruling. The Army assigned task forces to aid law enforcement authorities in restoring law and order in these troubled cities.

Task Force (TF) Chicago's Commander, in his AAR, made several recommendations to improve civil disturbance operations. He recommended a robust staff element capable of maintaining 12-24 hour operations join the commander in the advance party. He suggested predetermining the type and configuration of aircraft prior to deployment to decrease unit movement times. He recommended forces employ

immediately to the most active areas because their presence reduced violence significantly. The commander believed there was a tendency to over-react to typical incidents. Therefore, he suggested forces send liaisons to the target communities as early as possible to establish normal incident rates. He also thought units should come better prepared with riot control equipment whether National Guard or active duty units.⁵⁰

TF Washington personnel also learned lessons applicable to current civil support operations. Its AAR stated, “the immediacy of the need for early augmentation of law enforcement officials when faced with the dynamics of a riot or near-riot is such that the earliest possible commitment of troops is necessary to prevent the widespread destruction of property.”⁵¹ It proposed devising an accurate reporting system to delineate priority incidents from typical incidents. The military intelligence personnel employment to law enforcement precincts enabled that effort. Another positive tactic identified by the TF was troop employment at night, preventing civil disturbance ignition. Military Police are the most logical rapid reaction force to respond to civil disturbances according to the AAR. It advised units to practice static security, patrolling, riot control methods, traffic control, convoy discipline, apprehension, and detention during civil disturbance training.⁵²

The Army also learned some noteworthy lessons conducting civil disturbance operations in Los Angeles. The Los Angeles Riots occurred in April 1968; rioters protested against civil authorities and looted community stores. 7th Infantry Division and 40th Infantry Division, California National Guard, elements responded to the civil disturbance with great success.

General James Delk, commander of the California National Guard during the Los Angeles Riots, in *Soldiers in Cities: Military Operations on Urban Terrain*, recorded several important lessons for tactical units. He believed civil disturbance training and equipment should protect individuals from lethal and non-lethal threats. He provided published use of force requirements to every soldier. He also believed public affairs had a direct correlation on operations; if public affairs went well, so too did his operations. His logisticians had to provide non-organic vehicles to transport troops throughout the city. Internal communications depended on cell phone use. Surprisingly, soldiers required psychiatric services to deal with actions against their fellow citizens. General Delk thought the most critical characteristic that led to his unit's operational success was their restraint.⁵³

Army forces in Chicago, Washington, and Los Angeles conveyed essential civil disturbance tasks from their efforts to restore law and order. Forces responding to Hurricanes Andrew, Hurricane Katrina, the Great Alaskan Earthquake, and the Loma Prieta Earthquake also shared critical tasks from their disaster experiences. These tasks easily build upon the foundation set by previously identified emergency response principles. This essential task framework also includes important subtasks that BCTs may utilize in future civil support operations (see Appendix B).

Theoretical Application

The NRF uses eight disaster scenario sets to build preparedness, conduct exercises, and estimate response capabilities. The sets include the following: explosives, nuclear, radiological, biological, chemical, and cyber attacks; natural disaster, and pandemic influenza.⁵⁴ The essential civil support tasks identified from emergency

response principles and some previous Army operations should apply across the disaster scenario sets. A theoretical application helps place this study's content into perspective.

In preparation for civil support operations, tactical Field Artillery and Air Defense Artillery units located at Fort Sill, Oklahoma conducted civil support training quarterly which included use of force training. The units based their training on secondary functions provided by Army Forces Command to conduct disaster support. Forces Command designated units at Fort Sill as Life Saving Brigades. The units at Fort Sill rotated functional training annually. 214th Fires Brigade trained incident site establishment. 75th Fires Brigade trained medical support operations. 31st Air Defense Artillery Brigade conducted search and rescue training. The units also trained civil support operations annually with their National Guard counterparts. The brigade and battalion staffs conducted situational training exercises to update and verify unit standard operating procedures. The staffs also integrated intelligence, surveillance, and reconnaissance platforms to gather information to develop their situational understanding and awareness during the training exercises. The brigade logisticians conducted staff exercises also to prepare for future civil support operations.

NORTHCOM enacted Civil Support Response Level 1 after a disastrous attack occurred in El Paso, Texas. Army North instantly activated contingency contracts across supporting installations, coordinated aviation support requests for pre-identified unit movement and operational requirements, and began to send Class IV construction material to the regional support installation. The primary regional support installation, Fort Bliss, Texas was affected by the disaster. The alternate facility, Kirtland Air Force Base in Albuquerque, New Mexico began coordination to receive personnel, equipment,

and supplies from other designated DOD regional support facilities and FEMA Incident Support Bases across the nation.

Units at Fort Sill enacted mobilization procedures using Civil Support Response Level 1 authorities. Units gathered their response equipment and supplies. 214th Fires Brigade's Force Package One included assessment teams, subject matter experts, and primary liaison officers. It departed from Lawton-Ft. Sill Regional Airport and arrived at Kirtland Air Force Base within six hours of notification. Force Package One met with officials from Army North and the Defense Coordination Element to receive a mission brief. The mission briefing included situational updates, potential areas of operations, potential missions, and identified key leaders from civil organizations and National Guard units. Some Force Package One members departed immediately for operations.

Force Package Two included the brigade commander, staff members, additional liaison officers, and the advance party representatives from military police, engineer, public affairs, and chaplain corps. It arrived at Kirtland within twenty-four hours of notification; it also received a mission briefing. Force Package Three, 214th's main body, began movement within twenty four hours to its staging base at Tinker Air Force Base in Oklahoma City, Oklahoma. The brigade also expected to receive a Military Police Company at Tinker and a CBRNE response team from 20th Support Command. It planned to conduct additional training until movement instructions arrived. 75th Fires and 31st Air Defense Brigades conducted similar activities.

The SECDEF assigns 214th, 75th, and 31st brigades to JTF-EL Paso after the President declares a disaster in El Paso. The DCO directs 214th and 31st brigades to conduct search and rescue operations in downtown El Paso. The DCO tasks 75th Fires

brigade to reinforce Task Force Medical (CCMRF). The brigades begin air movement to Kirtland less than 36 hours after notification. When they arrive at Kirtland, the brigades receive detailed mission briefings from Army North and Force Packages One and Two personnel. 75th Fires will assist medical evacuation efforts from local health facilities in Las Cruces and Alamogordo, New Mexico to care facilities in the southwest region. The 75th will stage at Holloman Air Force Base and receive specialized ambulances and cargo buses to move victims. The JTF-El Paso Commander tasked the brigade to reorganize and form ambulance evacuation teams. These ambulance teams consisted of twenty man teams led by Red Cross volunteers. The 214th and 31st brigades will stage at White Sands Missile Range. At White Sands, the brigades will receive FEMA's Urban Search and Rescue teams for command and control. 214th's newly assigned Military Police Company was re-assigned to conduct quick reaction force operations in support of the Border Patrol.

The 75th brigade conducted ground evacuation operations to places as far away as Phoenix, Arizona; Las Vegas, Nevada; and Denver, Colorado. It established an evacuation infrastructure with unit personnel and contractor support. The infrastructure included temporary facilities with several hotel type amenities located along the routes. The brigade ensured victims continued to receive medical support during the evacuations. The brigade public affairs and communications officers updated the victims, families, and the media constantly. The logisticians coordinated additional support for victim's family members and, in some cases, coordinated permanent housing for victims through FEMA.

214th and 31st Brigades also conducted security operations at White Sands Missile Range. Logisticians stockpiled relief supplies and established a distribution point

at White Sands. The brigade engineers coordinated Highway 54's route clearance and established emergency access from El Paso to White Sands. Occasionally, disturbances disrupted operations at the distribution point. The brigades established a temporary detention facility with local law enforcement support. The DCO coordinated assignment of a National Guard cavalry platoon from Idaho to conduct detention operations and assigned them to 214th. Brigade personnel routinely reviewed use of force rules to ensure they maintained order at the distribution points. The JTF-El Paso operation was successful.

¹Joint Forces Command, Joint Warfighting Center, Joint Publication 2-01.3, *Joint Intelligence Preparation of the Operational Environment* (Suffolk, VA: Government Printing Office, 2009), I-1.

²Kristen M. Crossett et al, *Population Trends along the Coastal United States: 1980-2008* (Silver Spring, MD: National Oceanic and Atmospheric Administration National Ocean Service, 2004), 1 and 7; Central Intelligence Agency, "The World Factbook: United States," Central Intelligence Agency, <https://www.cia.gov/library/publications/the-world-factbook/geos/us.html> (accessed 3 August 2010).

³Joseph Scanlon, "Canadian Military Emergency Response: Highly Effective, but Rarely Part of the Plan," *Military Review* (November-December 2005), 74.

⁴Northern Command, "About USNORTHCOM," <http://www.northcom.mil/Aboutindex.html> (accessed 1 August 2010).

⁵Senate Committee on Armed Services, *Vice Admiral James A. Winnefeld Jr. Confirmation Hearing Transcript*, 111th Cong., 2nd sess., 15 April 2010.

⁶Wombwell, 9.

⁷Fink, 1.

⁸Kingston and Lambert, Contents.

⁹Webster's II Dictionary, 3d ed.

¹⁰Kingston and Lambert, 10.

¹¹Howard Kunreuther and Michael Useem, ed., *Learning from Catastrophes: Strategies for Reaction and Response* (Upper Saddle River, NJ: Wharton School Publishing, 2010), xiii-xiv.

¹²Geological Survey, *Earthquake Hazards: A National Threat* (Washington, DC: Government Printing Office, 2006), 1-2.

¹³Geological Survey, *Volcano Hazards: A National Threat* (Washington, DC: Government Printing Office, 2006), 1-2.

¹⁴Geological Survey, *Hurricane Hazards: A National Threat* (Washington, DC: Government Printing Office, 2005), 1-2.

¹⁵Geological Survey, *Flood Hazards- National Threat* (Washington, DC: Government Printing Office, 2006) 1-2.

¹⁶Charles E. Stewart, *Weapons of Mass Casualties and Terrorism Response Handbook* (Sudbury, MA: Bartlett Publishing, 2006), 76.

¹⁷Centers for Disease Control and Prevention, “Understand Quarantine and Isolation,” Centers for Disease Control and Prevention, <http://emergency.cdc.gov/preparedness/quarantine/> (accessed 22 September 2010).

¹⁸Stewart, 83.

¹⁹Centers for Disease Control and Prevention, “Past Avian Influenza Outbreaks,” Centers for Disease Control and Prevention, <http://www.cdc.gov/flu/avian/outbreaks/past.htm> (accessed 22 September 2010).

²⁰Centers for Disease Control and Prevention, “2009 H1N1-Related Deaths, Hospitalizations and Cases: Details of Extrapolations and Ranges: United States, Emerging Infections Program (EIP) Data.” Centers for Disease Control and Prevention, http://www.cdc.gov/h1n1flu/pdf/Exact%20Numbers_AprilN.pdf (accessed 22 September 2010).

²¹Department of the Army, Field Manual 3-19.15, *Civil Disturbance Operations* (Washington, DC: Government Printing Office, 2005), 1-2.

²²Department of the Army, *Civil Support Operations*, Final Approved Draft, 1-1.

²³Henry B. Hogue and Keith Bea, *Federal Emergency Management and Homeland Security Organization: Historical Developments and Legislative Options* (Washington, DC: Government Printing Office, 2006), 5.

²⁴National Governor’s Association, *Comprehensive Emergency Management: A Governor’s Guide* (Washington, DC: Government Printing Office, 1979), 11.

²⁵Kevin M. Cahill, ed., *Emergency Relief Operations* (New York: Center for International Health and Cooperation, 2003), 1.

²⁶Department of the Army, *Civil Support Operations*, 1-15.

²⁷*Ibid.*, xiii.

²⁸Fink, 1-2.

²⁹Cahill, 5-9.

³⁰*Ibid.*, 39-43.

³¹*Ibid.*, 54.

³²*Ibid.*, 36.

³³*Ibid.*, 64.

³⁴Anthea Sanyasi, *Extreme Emergencies: Humanitarian Assistance to Civilian Populations Following Chemical, Biological, Radiological, Nuclear, and Explosive Incidents- A Sourcebook* (United Kingdom: ITDG Publishing, 2004), 35-42.

³⁵Cahill, 80.

³⁶*Ibid.*, 62.

³⁷*Ibid.*, 84-110.

³⁸Department of the Army, *Joint Task Force Andrew After Action Report Executive Summary* (Washington, DC: Government Printing Office, 1992), 1.

³⁹Lynn E. Davis et al., *Hurricane Katrina: Lessons for Army Planning and Operations* (Santa Monica, CA: Rand Corporation, 2007), 21.

⁴⁰Wombwell, 164.

⁴¹Davis, 25-27 and 35-39.

⁴²Wombwell, 195-213.

⁴³Alaska Earthquake Information Center, "The Great Alaska Earthquake of 1964," http://www.aeic.alaska.edu/quakes/Alaska_1964_earthquake.html (accessed 23 October 2010).

⁴⁴Department of Defense, *Operation Helping Hand: the Armed Forces React to Earthquake Disaster* (Washington, DC: Government Printing Office, 1964), 4-21.

⁴⁵Janet McDonnell, *Response to the Loma Prieta Earthquake* (Fort Belvoir, VA: Government Printing Office, 1993), 1.

⁴⁶*Ibid.*, 23-25.

⁴⁷*Ibid.*, 36 and 42.

⁴⁸*Ibid.*, 64.

⁴⁹*Ibid.*, 68-69.

⁵⁰Department of the Army, *After Action Report- TF Chicago, Headquarters III Corps and Fort Hood* (Washington, DC: Government Printing Office, 1968), 12-18.

⁵¹Department of the Army, *After Action Report-TF Washington* (Washington, DC: Government Printing Office, 1968), 13.

⁵²*Ibid.*, 13-15.

⁵³Michael C. Desch, ed., *Soldiers in Cities: Military Operations on Urban Terrain* (Carlisle, PA: Strategic Studies Institute, 2001), 96-102.

⁵⁴Department of the Army, *Civil Support Operations*, 2-11 to 2-12.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

The military is a truly noble profession and usually viewed in the highest regards. The military earns this respect because today's military is an all-volunteer force with numerous global commitments, requiring a special range of individual skills. The Army fills its ranks with citizen-soldiers representative of America's best and brightest. Rarely does the Army receive criticism for its performance while completing these global missions. It is, arguably, the best military generation in US history. In addition, the Army supported civil authorities in numerous domestic support operations throughout American history. The military garners tremendous respect and admiration.

The federal government's disaster response, which included several thousand Army soldiers, to Hurricane Katrina disappointed Americans. Hurricane Katrina exemplified America's expectation that the Army is the one organization capable of saving lives, alleviating suffering, and protecting property when all other organizations fail. The Army must recognize this tremendous responsibility and engage civil support operations more proactively. DOD cannot afford the criticism it received from Congress for its Hurricane Katrina response.

It would not be possible to anticipate all problems and prevent all the difficulties that ensued from a storm of this magnitude, but better planning, more robust exercises, and better engagement between active forces and the National Guard both before and during disaster response would have helped prevent human suffering.¹

The Army's tactical units have an enormous capability. These units must provide better support to civil authorities during disaster responses.

Although the Army has conducted numerous civil support operations, it has not included them in its doctrine. Even more surprising, as the fourth element of full spectrum operations, doctrine vaguely addresses civil support operations. The Army's recently published FM 3-28, *Civil Support Operations*, began to fill a large doctrinal void. This study intends to fill the doctrinal void also and to assist tactical units in their future civil support operations.

This study began with the question, "how can BCTs better support civil authorities' efforts to reduce disaster impacts?" The answer is identify essential tasks to develop training strategies that increase BCT civil support capabilities. Emergency response principles and the Army's history suggest the most essential tasks are prepare, save lives, alleviate suffering, and protect property. This study also used the Army's history to identify some critical subtasks associated with the essential tasks. This task list allows BCTs to prepare now for civil support operations versus waiting for a federal disaster declaration to act. These essential tasks allow tactical units to act proactively and decisively in their efforts to defend the US against disasters.

The Army's civil support operations will continue to evolve in a positive direction. The essential tasks identified in this study exist to aid this evolution. The Army must continue to study how its tactical formations can improve DSCA. As America faces difficult times, it will see an Army dedicated to disaster relief. Steven Fink, in *Crisis Management: Planning for the Inevitable*, commented, "if you acknowledge that in these complex and unpredictable times in which we live and work, anything is possible, including a crisis that may prove devastating to you—then you will be in the right frame

of mind to accept the contention that . . . with proper advance planning, there can be a positive side to a crisis.”²

¹House Select Bipartisan Committee to Investigate the Preparation for and the Response to Hurricane Katrina, *A Failure of Initiative*, 109th Cong., 2d sess., 2006, H. Rpt. 000-000, 201.

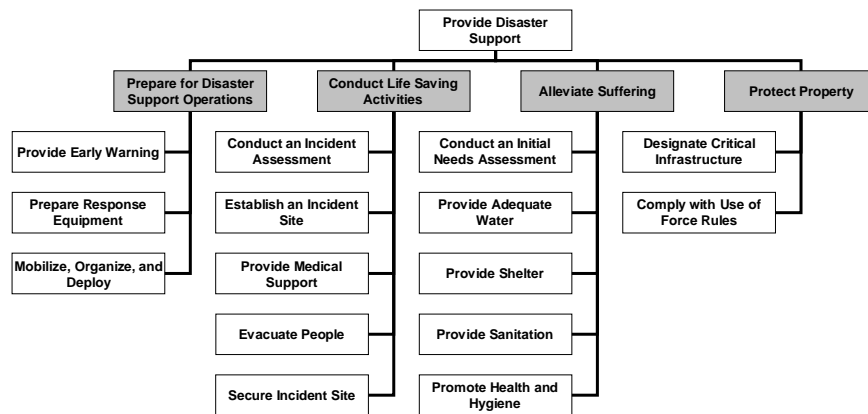
²Fink, 1.

APPENDIX A

EMERGENCY RESPONSE PRINCIPLES



Emergency Response Principles



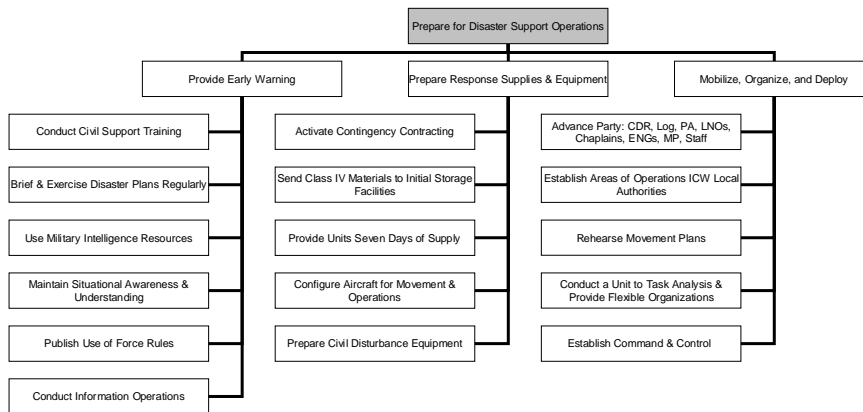
Source: Created by author.

APPENDIX B

ESSENTIAL CIVIL SUPPORT TASKS



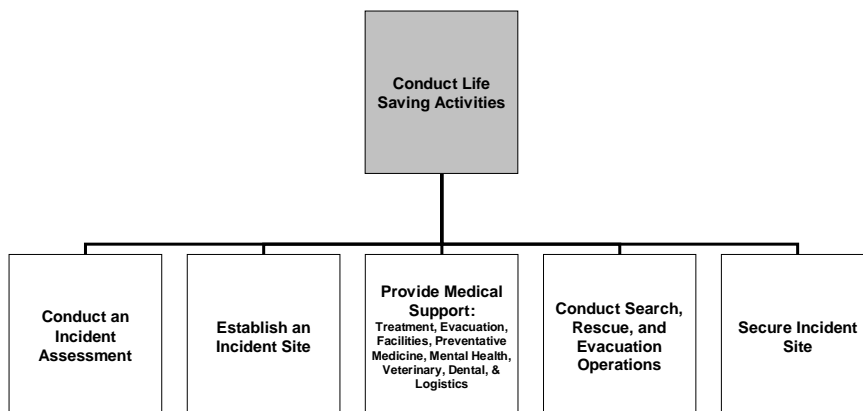
Essential Civil Support Tasks



Recommended Task and Subtasks



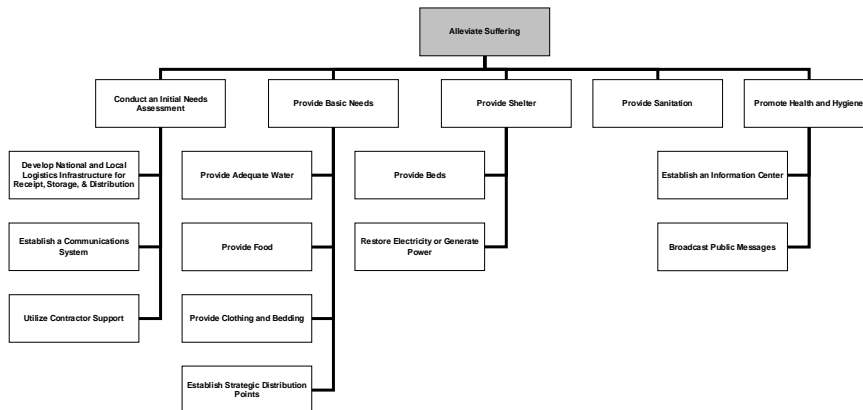
Essential Civil Support Tasks



Recommended Task and Subtasks



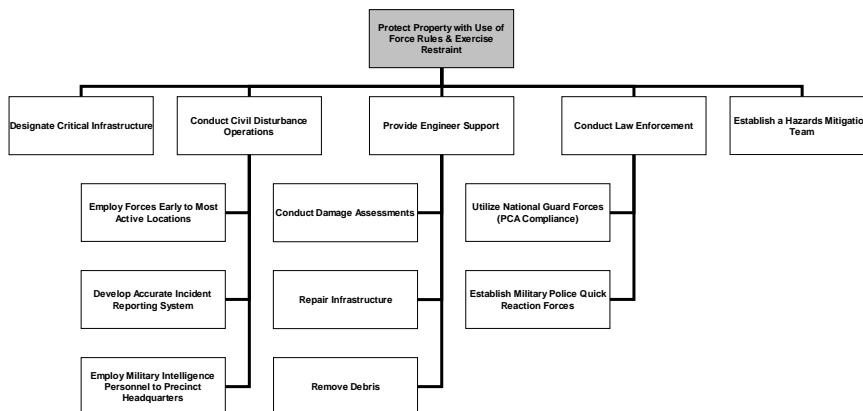
Essential Civil Support Tasks



Recommended Task and Subtasks



Essential Civil Support Tasks



Recommended Task and Subtasks

Source: Created by author.

APPENDIX C

WATER, SANITATION, HYGIENE, AND SHELTER CONSIDERATIONS

CONSIDERATIONS

WATER	SANITATION	HYGIENE	SHELTER
Quantity	Excreta	Education Programs	Temporary Ventilation
Quality	Organic Material	Health Promotion	Permanent Cooking Facilities
Protection	Inorganic Objects	Water	Site Planning Storage
Storage	Storage	Sanitation	Security Waste Disposal
Treatment	Collection	Media Relations	Soil Type Potable Water Access
Testing	Recycling	Individual/ Family Interaction	Drainage Goods/Services Access
Distribution	Disposal		Fuel Availability Vector Control
	Industrial Waste		Vegetative Cover Construction Material
	Waste Water		Individual Space
	Medical Waste		
	The Dead		
	Vector Control		

Source: Created by author.

BIBLIOGRAPHY

Books

- Asimov, Isaac. *A Choice of Catastrophes: The Disasters that Threaten our World*. New York: Simon and Schuster, 1979.
- Buck, George. *Preparing for Terrorism: An Emergency Services Guide*. Albany, NY: Delmar, 2002.
- . *Preparing for Biological Terrorism: An Emergency Services Planning Guide*. Albany, NY: Delmar, 2002.
- Cahill, Kevin M., ed. *Emergency Relief Operations*. New York: Center for International Health and Cooperation, 2003.
- Diacu, Florin. *Megadisasters: Predicting the Next Catastrophe*. New York: Oxford University Press, 2009.
- Fink, Steven. *Crisis Management: Planning for the Inevitable*. Lincoln, NE: iUniverse Inc., 2002.
- Gordenker, Leon. *Soldiers, Peacekeepers, and Disasters*. New York: St. Martin's Press, 1991.
- Kingston, Jeremy, and David Lambert. *Catastrophe and Crisis*. London: Aldus Books Limited, 1979.
- Kunreuther, Howard, and Michael Useem, ed. *Learning from Catastrophes: Strategies for Reaction and Response*. Upper Saddle River, NJ: Wharton School Publishing, 2010.
- Larson, Eric, and John Peters. *Preparing the U.S. Army for Homeland Security: Concept, Issues, and Options*. Santa Monica, CA: Rand Corporation, 2001.
- McDonnell, Janet A. *Response to the Loma Prieta Earthquake*. Fort Belvoir, VA: Government Printing Office, 1993.
- Monmonier, Mark. *Cartographies of Danger: Mapping Hazards in America*. Chicago: University of Chicago Press, 1997.
- National Commission on Terrorist Attacks upon the United States. *The 9/11 Commission Report: Final Report of the National Commission on Terrorist Attacks Upon the United States*. New York: W.W. Norton and Company, 2004.

- Nudell, Mayer, and Norman Antokol. *The Handbook for Effective Emergency and Crisis Management*. Lexington, MA: Lexington Books, 1988.
- Redlener, Irwin. *Americans at Risk: Why We Are Not Prepared for Megadisasters and What We Can Do Now*. New York: Alfred A. Knopf, 2006.
- Ridge, Tom. *The Test of our Times: America Under Siege... and How We Can Be Safe Again*. New York: Thomas Dunne Book, 2009.
- Sanyasi, Anthea. *Extreme Emergencies: Humanitarian Assistance to Civilian Populations Following Chemical, Biological, Radiological, Nuclear, and Explosive Incidents- A Sourcebook*. United Kingdom: ITDG Publishing, 2004.
- Stewart, Charles E. *Weapons of Mass Casualties and Terrorism Response Handbook*. Sudbury, MA: Jones and Bartlett Publishing, 2006.
- Wombwell, James A. *Army Support during the Hurricane Katrina Disaster*. Fort Leavenworth, KS: Combat Studies Institute Press, 2009.
- Yin, Robert K. *Case Study Research: Design and Methods*, 4th ed. Thousand Oaks, CA: Sage Publications, 2009.

Government Sources

- Alcohol, Tobacco, and Firearms Bureau Public Affairs Office. *US Bomb Data Center Fact Sheet*. Washington, DC: Government Printing Office, 2008.
- Army Training and Doctrine Command. Field Manual 3-28.1, *Civil Support, Multiservice Tactics, Techniques, and Procedures for Civil Support (CS) Operations*. Fort Monroe, VA: Government Printing Office, 2007.
- Bea, Keith, Elaine Halchin, Henry Hogue, Frederick Kaiser, Natalie Love, Francis X. McCarthy, Shawn Reese, and Barbara Schwemle. *Federal Emergency Management Policy Changes after Hurricane Katrina: a Summary of Statutory Provisions*. Washington, DC: Congressional Research Service, 2006.
- Borja, Elizabeth C. *Brief Documentary History of the Department of Homeland Security: 2001-2008*. Washington, DC: Department of Homeland Security History Office, 2008.
- Bowman, Steve. *Homeland Security: The Department of Defense's Role*. Washington, DC: Congressional Research Service, 2003.
- Commission on National Security/21st Century. *The Phase III Report. Road Map for National Security: Imperative for Change*. Washington, DC: Government Printing Office, 2001.

- Congress. House. House Armed Services Committee. Commander, United States Northern Command, before the House Armed Services Committee: Subcommittee on Terrorism and Unconventional Threats and Capabilities. 110th Cong., 2nd sess., 5 March 2008.
- . Select Bipartisan Committee to Investigate the Preparation for and Response to Hurricane Katrina. *A Failure of Initiative*. 109th Cong., 2d sess., 2006. H. Rep. 000-000.
- Congress. Senate. Committee on Homeland Security and Government Affairs. *Hurricane Katrina: A Nation Still Unprepared*. 109th Cong., 2d sess., 2006. S. Rep. 109-322.
- . Committee on Armed Services. Vice Admiral James A. Winnefeld Jr. Confirmation Hearing before the Committee on Armed Services. 111th Cong., 2nd sess., 15 April 2010.
- Crossett, Kristen M., Thomas J. Culliton, Peter C. Wiley, and Timothy R. Goodspeed. *Population Trends along the Coastal United States: 1980-2008*. Silver Spring, MD: National Oceanic and Atmospheric Administration National Ocean Service, 2004.
- Davis, Lynn E., Jill Rough, Gary Cecchine, Agnes Gereben Schaefer, and Laurinda L. Zeman. *Hurricane Katrina: Lessons for Army Planning and Operations*. Santa Monica, CA: Rand Corporation, 2007.
- Department of the Army. *After Action Report- TF Chicago, Headquarters III Corps and Fort Hood*. Washington, DC: Government Printing Office, 1968.
- . *After Action Report-TF Washington*. Washington, DC: Government Printing Office, 1968.
- . *Joint Task Force Andrew After Action Report Executive Summary*. Washington, DC: Government Printing Office, 1992.
- . Field Manual 1, *The Army*. Washington, DC: Government Printing Office, 2005.
- . Field Manual 3-0, *Operations*. Washington, DC: Government Printing Office, 2008.
- . Field Manual 3-07, *Stability Operations*. Washington, DC: Government Printing Office, 2008.
- . Field Manual 3-19.15, *Civil Disturbance Operations*. Washington, DC: Government Printing Office, 2005.

- . Field Manual 3-37, *Protection*. Washington, DC: Government Printing Office, 2009.
- . Field Manual 3-28, *Civil Support Operations*. Washington, DC: Government Printing Office, 2010.
- . Field Manual 3-28, *Civil Support Operations* (Final Approved Draft). Washington, DC: Government Printing Office, 2010.
- . Field Manual 3-28.1, *Multiservice Tactics, Techniques, and Procedures for Civil Support (CS) Operations*. Washington, DC: Government Printing Office, 2007.
- . Field Manual 3-90.6, *The Brigade Combat Team*. Washington, DC: Government Printing Office, 2006.
- . Field Manual 100-19, *Domestic Support Operations*. Washington, DC: Government Printing Office, 1993.
- . Field Manual 3-21.20, *The Infantry Battalion*. Washington, DC: Government Printing Office, 2006.
- . Field Manual 3-90.5, *The Combined Arms Battalion*. Washington, DC: Government Printing Office, 2008.
- . Field Manual 7-15, *The Army Universal Task List*. Washington, DC: Government Printing Office, 2009.
- . Training Circular 7-98-1, *Stability and Support Operations Training Support Package*. Washington, DC: Government Printing Office, 1997.
- Department of Defense. *National Defense Strategy*. Washington, DC: Government Printing Office, 2008.
- . *National Military Strategy*. Washington, DC: Government Printing Office, 2004.
- . *Operation Helping Hand: The Armed Forces React to Earthquake Disaster*. Washington, DC: Government Printing Office, 2004.
- Department of Homeland Security. *Quick Reference Guide for the National Response Plan*. Washington, DC: Government Printing Office, 2006.
- . *Federal Preparedness Report*. Washington, DC: Government Printing Office, 2009.
- Desch, Michael C. *Soldiers in Cities: Military Operations on Urban Terrain*. Carlisle, PA: Strategic Studies Institute, 2001.

- Federal Bureau of Investigation Bomb Data Center. *General Information Bulletin 97-1, 1997 Bomb Summary*. Washington, DC: Government Printing Office, 1997.
- Geological Survey. *Earthquake Hazards: A National Threat*. Washington, DC: Government Printing Office, 2006.
- . *Flood Hazards- National Threat*. Washington, DC: Government Printing Office, 2006.
- . *Hurricane Hazards: A National Threat*. Washington, DC: Government Printing Office, 2005.
- . *Volcano Hazards: A National Threat*. Washington, DC: Government Printing Office, 2006.
- Government Accountability Office. *Homeland Defense: Planning, Resourcing, and Training Issues Challenge DOD's Response to Domestic Chemical, Biological, Radiological, Nuclear, and High-Yield Explosive Incidents*. Washington, DC: Government Printing Office, 2009.
- Hogue, Henry B., and Keith Bea. *Federal Emergency Management and Homeland Security Organization: Historical Developments and Legislative Options*. Washington, DC: Congressional Research Service, 2006.
- Joint Forces Command, Joint Warfighting Center. Joint Publication 2-01.3, *Joint Intelligence Preparation of the Operational Environment*. Suffolk, VA: Government Printing Office, 2009.
- . Joint Publication 3-0, *Joint Operations*. Suffolk, VA: Government Printing Office, 2008.
- . Joint Publication 3-28, *Civil Support*. Suffolk, VA: Government Printing Office, 2007.
- . Joint Publication 3-41, *Chemical, Biological, Radiological, Nuclear, and High-Yield Explosives Consequence Management*. Suffolk, VA: Government Printing Office, 2006.
- . Joint Publication 5-0, *Joint Operation Planning*. Suffolk, VA: Government Printing Office, 2006.
- National Governor's Association. *Comprehensive Emergency Management: A Governor's Guide*. Washington, DC: Government Printing Office, 1979.
- Northern Command. *US Northern Command: Protecting and Defending America 2002-2008*. Peterson Air Force Base, CO: Government Printing Office, 2008.

U.S. Code Congressional and Administrative News. *Legislative History: Public Laws 100-648 to 100-713*. St. Paul, MN: West Publishing, 1989.

———. *Legislative History: Public Laws 93-246 to 93-572*. St. Paul, MN: West Publishing, 1975.

The White House. *National Security Strategy*. Washington, DC: Government Printing Office, 2010.

Internet Sources

Bielling, Patti. "Units Assigned to CCMRF Gain Insights for New Response Mission." United States Northern Command. http://www.northcom.mil/news/2008/091908_a.html (accessed 6 June 2010).

Cavallaro, Gina. "Brigade Homeland Tours Begin Oct. 1." *Army Times*. http://www.armytimes.com/news/2008/09/army_homeland_090708w/ (accessed 6 June 2010).

Centers for Disease Control and Prevention. "2009 H1N1-Related Deaths, Hospitalizations and Cases: Details of Extrapolations and Ranges: United States, Emerging Infections Program (EIP) Data." http://www.cdc.gov/h1n1flu/pdf/Exact%20Numbers_AprilN.pdf (accessed 22 September 2010).

———. "Past Avian Influenza Outbreaks." <http://www.cdc.gov/flu/avian/outbreaks/past.htm> (accessed 22 September 2010).

———. "Understand Quarantine and Isolation." <http://emergency.cdc.gov/preparedness/quarantine/> (accessed 22 September 2010).

Central Intelligence Agency. "The World Factbook: United States." <https://www.cia.gov/library/publications/the-world-factbook/geos/us.html> (accessed 3 August 2010).

Northern Command. "About USNORTHCOM." <http://www.northcom.mil/About/index.html> (accessed 1 August 2010).

Journal

Scanlon, Joseph. "Canadian Military Emergency Response: Highly Effective, but Rarely Part of the Plan." *Military Review* (November-December 2005): 74-79.

INITIAL DISTRIBUTION LIST

Combined Arms Research Library
U.S. Army Command and General Staff College
250 Gibbon Ave.
Fort Leavenworth, KS 66027-2314

Defense Technical Information Center/OCA
825 John J. Kingman Rd., Suite 944
Fort Belvoir, VA 22060-6218

Dr. Charles Heller
Department of Command and Leadership
USACGSC
100 Stimson Ave.
Fort Leavenworth, KS 66027-2301

Mr. Larry Noell
Department of Logistics and Resource Operations
USACGSC
100 Stimson Ave.
Fort Leavenworth, KS 66027-2301

Mr. Bruce Reider
Department of Joint, Interagency, and Multinational Operations
USACGSC
100 Stimson Ave.
Fort Leavenworth, KS 66027-2301